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A STUDY FOR THE  
DEVELOPMENT OF

FORT POINT CHANNEL  
SOUTH BAY AND ADJACENT AREAS



1950

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A STUDY FOR THE  
DEVELOPMENT OF

FORT POINT CHANNEL  
SOUTH BAY AND ADJACENT AREAS

SUBMITTED TO  
THE GREAT AND HONORABLE GENERAL COURT  
OF

*The Commonwealth of Massachusetts*

BY THE  
PORT OF BOSTON AUTHORITY  
IN ACCORDANCE WITH  
CHAPTER 36, OF THE RESOLVES OF 1949

MAY 15, 1950

# PORT OF BOSTON AUTHORITY

## COMMISSIONERS

JAMES R. NOLEN, Chairman

GERALD HENDERSON

ALEXANDER MACOMBER

WALTER McDONOUGH

BERNARD R. BALDWIN

JOHN BRESNAHAN, Acting Director

GEORGE L. WEY, Chief Engineer



JAMES R. NOLAN, CHAIRMAN  
BERNARD R. BALDWIN  
ALEXANDER MACGOWEN  
WALTER McDONOUGH  
GERALD HENDERSON

*The Commonwealth of Massachusetts*

*Port of Boston Authority*

*Commonwealth Rec. No. 5*

*Boston 10*

May 15, 1950

The Great and Honorable General Court  
of the Commonwealth of Massachusetts  
State House  
Boston, Massachusetts

Gentlemen:

In accordance with Chapter 36 of the Resolves of Nineteen Hundred and Forty-nine, the Port of Boston Authority hereby submits its study and report for the development of Fort Point Channel, South Bay and adjacent areas in the City of Boston and Boston Harbor.

During the course of this study the Port of Boston Authority has maintained a very close liaison with the Commonwealth of Massachusetts Attorney General's Office, Department of Public Works, Department of Public Health and the State Planning Board; the City of Boston Mayor's Office, Corporation Counsel, Department of Public Works, Street Commissioner, Traffic Commissioner, the Planning Board and the Boston Market Authority Commission; Boston Chamber of Commerce; the Greater Boston Development Committee and the various civic and business organizations which may be affected by or interested in the scope of the proposed project.

The cooperation received from these individuals, agencies and organizations has been outstanding and without such a spirit of cooperation and assistance the study and report would have suffered materially.

The benefits to be obtained from reclaiming the Fort Point Channel, South Bay and adjacent areas are of far reaching importance and will be of lasting value to the economic development of both the Commonwealth of Massachusetts and the City of Boston. The Commissioners of the Port of Boston Authority are unanimous in their opinion that this project represents possibly the largest and most important step in the development of the transportation, port activity, commerce and industry of the Commonwealth and the City.

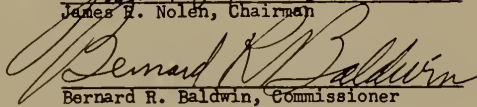
The economics of the project are sound. The total savings to accrue to the citizens of the Commonwealth will be more than commensurate with the original investment. These, together with the numerous benefits to all parties concerned, make the project vital, if the Commonwealth is to keep pace in these competitive times.

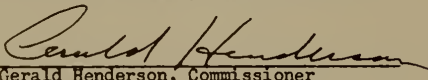
We earnestly hope that our recommendations will be given immediate attention and serious consideration and the proposed form of legislation contained in the study will meet with your unanimous approval.

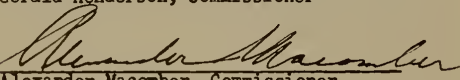
Very truly yours,


PORT OF BOSTON AUTHORITY

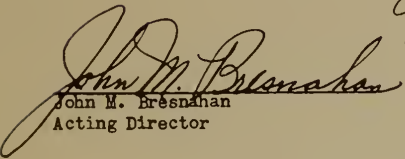
  
James R. Nolen, Chairman

  
Bernard R. Baldwin, Commissioner

  
Gerald Henderson, Commissioner

  
Alexander Macomber, Commissioner

  
Walter McDonough, Commissioner

  
John M. Bresnahan  
Acting Director



A STUDY FOR THE  
DEVELOPMENT OF

FORT POINT CHANNEL  
SOUTH BAY AND ADJACENT AREAS

PREPARED FOR THE  
PORT OF BOSTON AUTHORITY

BY

THOMAS WORCESTER INC.  
ENGINEERS - ARCHITECTS  
84 STATE ST., BOSTON, MASS.







# CONTENTS

	<i>Page</i>
Preface . . . . .	3
History of Fort Point Channel and South Bay . . . . .	4
Summary of Previous Legislative Reports . . . . .	7
Analysis of Recent Developments . . . . .	9
Engineering Aspects of the Project . . . . .	11
Construction of Drainage and Sea Water Conduit . . . . .	12
Construction of Sea-Wall . . . . .	13
Placing and Consolidation of Hydraulic Fill . . . . .	13
Utilization of the Site . . . . .	20
Proposed Relocation of the Boston Central Artery . . . . .	20
Proposed Site for Consolidated Wholesale Produce Market . . . . .	22
Alternate Uses for South Bay Site . . . . .	24
Proposed Site for Union Bus Terminal . . . . .	25
Proposed Site for City Hospital Expansion . . . . .	28
Proposed Site for Boston University - Massachusetts Memorial Hospital Medical Center . . . . .	28
Industrial and Commercial Sites . . . . .	28
Fringe Development . . . . .	31
Extended Port Facilities . . . . .	32
Miscellaneous Site Utilization . . . . .	32
Road and Area Beautification . . . . .	33
Legal Aspects of the Project . . . . .	35
Land Taking . . . . .	35
Land Damages . . . . .	36
Legislation Required . . . . .	37
Financial Aspects of the Project . . . . .	38
Cost of Project . . . . .	38
Method of Financing . . . . .	40
Benefits to be Realized . . . . .	41
Conclusions . . . . .	43
Appendix A . . . . .	45
Appendix B . . . . .	50



## ILLUSTRATIONS AND DIAGRAMS

Aerial View of Fort Point Channel, Corp of Engineers, U. S. Army . . . *Frontispiece*

	<i>Page</i>
Plate 1 View of Fort Point Channel and South Bay after its Proposed Reclamation and Development . . . . .	<i>opposite</i> 10
Plate 2 Plan and Typical Cross Sections Proposed Drainage and Seawater Conduit Fort Point Channel . . . . .	<i>opposite</i> 12
Plate 3 Cross Section of Proposed Seawall across Fort Point Channel at Northern Avenue . . . . .	14
Plate 4 Section through Fort Point Channel Showing Estimated Subsoil Conditions . . . . .	16
Plate 5 Proposed Borrow Areas and Pipeline Scheme for Fort Point Channel	19
Plate 6 Profile and Typical Cross Sections of Roadway New Route for Boston Central Artery . . . . .	<i>opposite</i> 22
Plate 7 View of Proposed Bridge Carrying Summer Street Over New Route for Boston Central Artery . . . . .	<i>opposite</i> 22
Plate 8 View of Proposed Consolidated Market on South Bay Site	<i>opposite</i> 24
Plate 9 Plan of Proposed Consolidated Market on South Bay Site	<i>opposite</i> 24
Plate 10 View of Proposed Municipal Stadium — Convention Hall	26
Plate 11 View of Proposed Union Bus Terminal on Fort Point Channel Site	29
Plate 12 Plan of Proposed Union Bus Terminal on Fort Point Channel Site	30
Plate 13 Proposed Areas to be Allotted to City of Boston Department of Public Works . . . . .	34
Plate 14 Land Takings Required Proposed Fort Point Channel and South Bay Project . . . . .	<i>opposite</i> 36
Plate 15 Plan of Fort Point Channel and South Bay after its Proposed Reclamation and Development . . . . .	<i>opposite</i> 44

# P R E F A C E

Fort Point Channel and South Bay, a limited navigational channel extending southwesterly from the most westerly corner of Boston Harbor, has been the object of numerous studies and much controversy and debate for well over half a century. This watercourse has attracted constant scrutiny as a result of the general decline of the channel and bay from a once substantial and prosperous maritime center to its present state of almost complete disuse. Deterioration of the area had reached such a point twenty years ago that an official commission indicated that the filling in of the bay and channel was desirable in order to reclaim land and eliminate a nuisance. The benefits then visible were far from commensurate with the cost of the project and no material action was taken.

A number of major works projected for the near future in the fields of transportation, merchandising and civic betterment, now point to the feasibility of the development of this area on a sound economic and engineering basis. The practicality of carrying out the plan in the immediate future has been expressed in a report entitled "Investigation and Study of the Feasibility of Filling South Bay and Fort Point Channel and the Utilization of the Filled Area" submitted March 1, 1949 to the Great and Honorable General Court by the Port of Boston Authority in accordance with Chapter 66 of the Resolves of 1948. This study and report was ably prepared by Mr. George L. Wey, Chief Engineer, Port of Boston Authority, and gives a concise and excellent account of the major facts considering the facilities available.

The presentation which follows is a further development of Mr. Wey's report and has been prepared under his personal direction and supervision. The study has been more exhaustive, the facts are more detailed, and the various aspects have been investigated and interpreted by parties trained in the fields involved. The report attempts to envelop all phases of this problem and to judge the facts soundly from technical, legal, and financial standpoints.



1775



# HISTORY OF FORT POINT

Fort Point Channel and South Bay area constitute a shallow and narrow waterway separating Boston proper from South Boston, extending from Northern Avenue near the South Station, towards Dorchester and Roxbury for a distance of approximately two miles.

Known in 1770 as Gallows Cove, it extended back along the south side of Boston separated from the Back Bay by a narrow causeway called "The Neck", which is now Washington Street. Bordering "The Neck" and extending into the Bay were marshes and flats. Boston at that time comprised some 600 acres, and when high tides submerged the cause-

way, or "Neck", the City was isolated from the mainland and became an island. As commerce and industry increased, the City expanded outwards into the marshes and flats and "Gallows Cove" became a thriving maritime center and contributed much to Boston's prosperity.

Dorchester and South Boston also expanded and gradually encroached on the waters of the Bay in a southerly direction. Roxbury Brook was widened and deepened and became a canal capable of handling vessels of all sizes of that period. In general, the entire area thrived and flourished with the world's commerce.



In later years, as the extension of the wharves became necessary in order to accommodate the increased size of vessels and as continuous land reclamations took place, the width of this waterway was reduced to a narrow channel.

As the area prospered, the need for land transportation from Boston to South Boston became pressing, because the journey around the Channel and the Bay was lengthy. Construction of bridges inevitably followed; and while they improved land transportation, they encumbered the movement of the large ocean-going vessels. This encumbrance proved especially inconvenient to sailing vessels which were the main-

stay of trade at the time. The decline of the area began as owners berthed their vessels at more accessible wharves and the merchants in the area were, in turn, forced to follow. The exodus of trade from the waterway continued undiminished and today, the Channel has entered into a state of almost complete disuse. The facilities lining its shores have deteriorated to a point of dilapidation.

From Colonial times, the Channel and Bay areas have been used as a drainage and sewage outlet, and such use continues to this day, although the volume of sewage has, of necessity, been diverted with the exception of overflow.

# CHANNEL AND SOUTH BAY



1925



195X

When the waterway was of considerable size, the sewage was no great problem, as the daily tidal flow produced sufficient dilution to remove the menace. As the population concentration around the area increased and the Bay decreased in size, the sewage concentration mounted to such dangerous proportions that it had to be collected and discharged into the main sewerage system. The Channel and Bay are still, however, a potential health menace when the main sewerage system is overtaxed and drainage and sewage overflow eventually find their way into the Channel. This sanitary problem still exists and must be coped with at some time and eliminated in the public interest.

Today, the Channel and Bay are a natural barrier separating Boston from South Boston. Six highway and one railway bridge span its width. By periodical dredging, the part from Dorchester Avenue to Northern Avenue can accommodate small ocean-going vessels. The remainder of the Channel with an average depth of 12 feet restricts the size of boats using the Channel to the very smallest. The only boats going beyond Dorchester Avenue at present are refuse disposal scows and a few pleasure craft.

At this time the Channel and Bay are of little value to commerce, and the general condition of the properties in this area presents an unsightly nuisance.



## SUMMARY OF PREVIOUS LEGISLATIVE REPORTS

Fort Point Channel, South Bay and their adjacent areas have been the subject of consideration by legislative committees for over eighty years. The waterway has stimulated this repeated display of legislative interest because of its decline to a state of general dilapidation and its growth as a public nuisance. Numerous special commissions have studied the area and have made recommendations as to its disposition, but to date there has been little change as a result of these investigations.

To summarize the reports of all these commissions would be too prolonged and might confuse the issue, because of the great variety of approaches and solutions to the problem. However, to demonstrate that the problem has been an issue over the years, a brief resume of the more outstanding reports follows.

The report of 1870, while not the first, was made as the result of a nuisance situation caused by the dumping of refuse and sewage into the Channel. The rebuilding of a portion of the sewerage system, restricting the disposal of rubbish in the Channel, and filling a section along the banks followed.

The idea of using the South Boston flats for railroad land was suggested in 1875. Strangely enough, this report mentioned the advisability of future filling of the estuary and industrial development of the reclaimed land. Again in 1893 a report recommended the filling of the Channel and the establishment of an industrial district.

Another report, completed in 1915, suggested the nuisance in Fort Point Channel and South Bay be corrected and proposed that the railroad fill in a portion of the Bay adjoining their property, since they would benefit the most.

From 1926 to 1930 legislative commissions kept the problem under constant study and made the most comprehensive reports up to that time.

These commissions were the first to realize the magnitude and significance of the problem. The major issue of earlier reports had been the elimination of the sanitary nuisance, but these last commissions were sufficiently visionary to recognize the possibilities of industrial and civic development in the area. Reports of this period recommended widening and extension of streets, elimination of draw spans and improvement of the area in the interest of the Commonwealth, the City of Boston and private enterprise.

In spite of the numerous studies and the benefits to be realized, no committee was ever able to set forth sufficiently strong arguments to make the project economically sound.

The problem remained dormant from 1930 until the presentation to the General Court on March 1, 1949, of a report

entitled "Investigation and Study of the Feasibility of Filling South Bay and Fort Point Channel and the Utilization of the Filled Area". This report was prepared by Mr. George L. Wey, Chief Engineer, Port of Boston Authority, and was submitted by the Authority in compliance with Resolves of 1948, Chapter 66. The report proposed an excellent use for a large portion of the reclaimed area in the form of a new route for the Boston Central Artery. This timely proposal again focused interest on the project, as it affects in a very substantial way the entire economics of the problem.

As a result, the Resolves of 1949, Chapter 36, then authorized and directed the Port of Boston Authority to make a complete investigation and to submit to the General Court their findings and recommendations.



## ANALYSIS OF RECENT DEVELOPMENTS

It is evident from the foregoing sections that, although the question of the development of Fort Point Channel and South Bay has been thoroughly investigated by various commissions appointed by the General Court, the benefits to be derived from such an undertaking did not appear to offset the initial cost. The issue, therefore, has been bypassed for nearly twenty years. However, new circumstances have arisen which bring the area and its development into focus as a solution for problems which confront the Commonwealth of Massachusetts and the City of Boston.

The Master Highway Plan, prepared by the Joint Board for the Metropolitan Master Highway Plan, contemplates the construction of a so-called "Belt Expressway" around Boston. This plan was developed to ease the traffic congestion which is constricting business in the City. The Boston Central Artery is an important link in this Belt Expressway. Since the separation of local traffic from through traffic is of vital importance to the success of such a highway, the only feasible method of accomplishing this in the restricted areas of the City is by the use of an elevated structure. This is considerably more expensive, both in initial cost and in maintenance, than a surface or depressed type of roadway. However, there is no alternative to an elevated structure in the crowded sections of the City. It is logical, therefore, that if a new route could be provided for even a section of the highway, which would permit a surface level or depressed type roadway, a considerable saving in the construction cost of that section of the Artery would accrue to the Commonwealth.

The filling and development of Fort Point Channel and South Bay areas, as recommended in this report, would provide a new route for the Boston Central Artery from approximately the intersection of Northern

and Atlantic Avenues to the traffic interchange at Massachusetts Avenue, which would permit the surface and depressed type of highway construction and would also accomplish the original design and purpose of the Belt Expressway.

In addition to the desirability of a new site for a section of the Boston Central Artery, the Boston Market Authority Commission, which is now seeking a new location for the Consolidated Wholesale Produce Market, has expressed the opinion that the South Bay area is the most logical site for the relocation of the market. The scope of the work contemplated in this report would provide a site suitable to meet the demands of this Commission and would keep the Consolidated Wholesale Produce Market within the confines of the City of Boston.

Since the close of World War II, the demand for new industrial sites, space for civic development and housing sites has steadily increased. Few sites are left in the City which meet the needs of increased commerce. One need only view the number of suburban community shopping centers, manufacturing plants, warehouses and distribution points which have been recently constructed to have proof of this statement. Suitable sites must be developed to meet

these demands if Boston is to maintain its present position in industry and commerce.

The need for off-street parking has been stressed by officials of both the Commonwealth and the City. An off-street parking program has already been undertaken by the City. However, this need will be increased by the influx of traffic to the City on the new Artery. Additional sites will be required in order to meet this demand.

This analysis shows the desirability of a new location for a section of the Boston Central Artery, a new site for the Consolidated Wholesale Produce Market, additional off-street parking areas and sites for civic and industrial developments. The reclamation of Fort Point Channel, South Bay and its adjacent areas would provide a more economical location for a section of the Boston Central Artery and a site for the Consolidated Wholesale Produce Market.

Plate No. I, entitled "View of Fort Point Channel and South Bay after its Proposed Reclamation and Development", and the various sections of the report which follow show the manner in which the problems presented may be solved to the greatest advantage of both the Commonwealth of Massachusetts and the City of Boston.





View of Fort Point Channel and South Bay after  
its Proposed Reclamation and Development





## ENGINEERING ASPECTS OF THE PROJECT

It is proposed to construct a concrete box conduit for drainage and condenser sea water the entire length of Fort Point Channel, South Bay, Dorchester Brook and Roxbury Canal; to construct a sea-wall across Fort Point Channel at Northern Avenue and to fill in the entire area to about elevation  $+16.0$  with material hydraulically dredged and pumped overland from Old Harbor off South Boston. The reclaimed land is then to be used as a new route for the Boston Central Artery, as a possible site for the Consolidated Wholesale Produce Market and other proposed developments outlined in detail in the following sections of this report.

The basic engineering aspects involved in carrying out this project, as proposed in this report, are as follows:

- (a) Construction of drainage and sea water conduit.
- (b) Construction of a sea-wall at Northern Avenue.
- (c) Placing and consolidation of hydraulic fill.

The solution of all three of these problems is feasible and practical from an engineering standpoint, and no serious technical obstacles are anticipated. The component problems are not to be slighted but are of a perfectly normal character.

The timing of the operations has a critical bearing on these problems. It is imperative that the schedule of operations of the above proposals be closely coordinated with that of the Department of Public Works for the construction of the Boston Central Artery. In addition, the filling of the southerly end of the project should be completed in time to meet the requirements of the Boston Market Authority Commission.

The magnitude and nature of the works to be performed are such as to require their inauguration at least two years in advance of any above-ground construction. Such being the case, the need for early and decisive action is evident.

## CONSTRUCTION OF DRAINAGE AND SEA WATER CONDUIT

The Fort Point Channel has two main tributaries, Roxbury Canal and Dorchester Brook, the confluence of which is in South Bay near Dover Street. From this point the Channel runs northeasterly to Northern Avenue where it discharges into inner Boston Harbor. These two tributaries plus South Bay and the Channel serve as natural storm drains for the terrain through which they pass. Following is a tabulation of estimated storm water run-off through the various areas.

Location	Approx. Area Acres	Contributed Storm Water Run-off Cu. Ft. per Sec.	Required Capacity of Conduit Cu. Ft. per Sec.
Roxbury Canal	530	460	460
Dorchester Brook	1,140	1,240	1,240
South Bay	550	600	2,300
Fort Point Channel	480	700	3,000
Total	2,700	3,000	

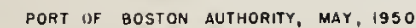
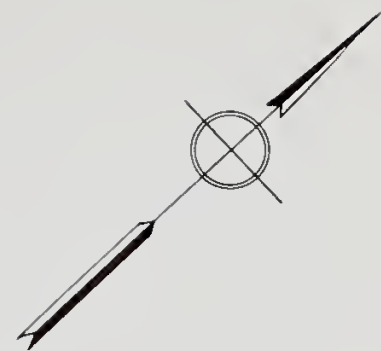
This run-off is of such volume that provision for its collection and disposal must be included in the project. It is proposed to construct a concrete box conduit designed to carry off this storm drainage and sewage overflow. Included in the design of this conduit is a provision for supplying sea water for the industrial cooling requirements of the industries abutting the waterway. This must be provided since the storm drainage, while suitable in character for cooling purposes, is so erratic in volume of flow that it cannot meet the almost constant demand of the industries concerned. The cooling water will be discharged into the storm drain

conduit. The entire conduit system can be used for drainage during times of heavy run-off.

Preliminary details of the conduit design are shown in Plate No. 2. This design calls for the conduit to be constructed on piles; however, further subsoil investigations may indicate the adequacy of simpler and less costly construction. The conduit, as designed, varies in cross section from 42 feet by 10 feet at Northern Avenue to 10 feet by 10 feet in the Roxbury Canal. The design also calls for a wide separation of the discharge and the cooling water inlet to prevent raising the temperature of the incoming water. The conduit should be constructed prior to the complete filling of the area, because the existing industries abutting the Channel require a continuous supply of cooling water and the area must be drained. Therefore, it will be necessary to resort to cofferdams during the building of the major part of the conduit. The existing storm and sanitary overflow drains which now discharge into any part of the waterway will be tied into the main conduit.

Construction of the conduit will eliminate with finality the existing nuisance and potential health menace provoked by the intermittent presence of sewage in the Channel where flow is sluggish and hazardous concentrations may prevail. Admitted, the sewage overflow is still to be discharged into the inner harbor, but this body of water is of such volume as to reduce any concentration below dangerous levels. The preliminary engineering estimate indicates that the complete conduit will cost approximately \$5,198,000.00.





**PLATE NO. 2**



Study has been given to discharging the combined storm and sanitary sewage at the Calf Pasture by reconstructing the existing sewerage system. Efficient sewage disposal depends upon the separation of storm and sanitary systems, but here this separation is impossible because of the age and extent of the combined system in the older section of the City of Boston. Any satisfactory method of separation would be prohibitively expensive. This study was carried out under the guidance and counsel of the State Department of Public Health and the City of Boston Department of Public Works, Sewer Division.

## CONSTRUCTION OF SEA-WALL

A sea-wall must be constructed across Fort Point Channel at Northern Avenue from Boston to South Boston to retain the fill and to support the roadway as shown on the general layout plan, Plate No. 15. Plate No. 3 shows a typical cross section of this proposed structure. The present draw-bridge will be removed and will be replaced with a concrete roadway and sidewalks laid on selected fill.

The design as shown in the typical cross section is known as a "relieving platform" type of construction. Creosoted timber deck will be supported on creosoted timber piles. The deck will carry a concrete gravity wall with granite block facing. The plank deck will be covered by a concrete deck which will support the fill placed behind the wall. Steel sheet piling will be driven near the south end of the "relieving platform" to serve as a cut-off. Provision will be made in the

sea-wall for the discharge of the drainage conduit and the terminus of the cooling water conduit.

The design offered is tentative and many variations may be made thereto to fit the requirements of any advisable port developments. A preliminary engineering estimate indicates that this phase of the work will cost approximately \$700,000.00.

## PLACING AND CONSOLIDATION OF HYDRAULIC FILL

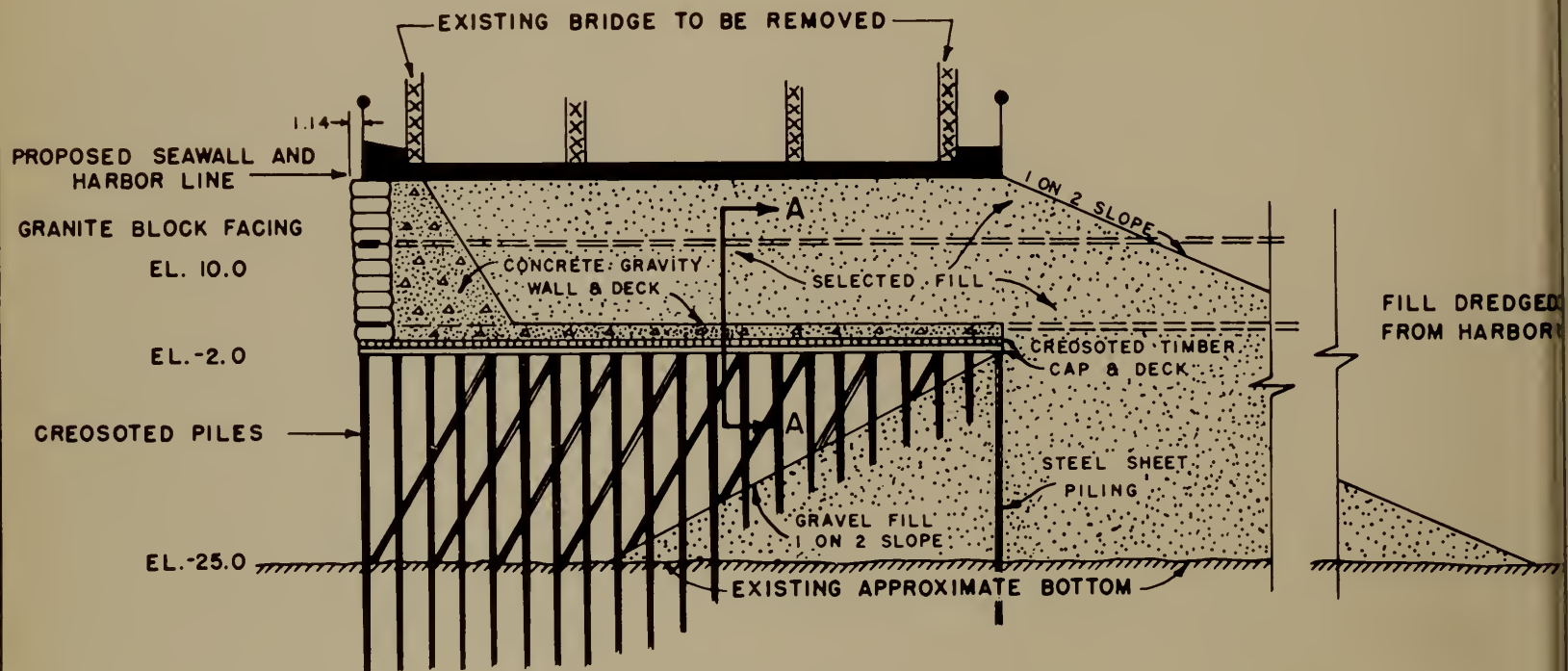
The following description of the subsoil conditions underlying the Fort Point Channel is based on information obtained from publications of the Boston Society of Civil Engineers and the Corps of Engineers, U. S. Army, supplemented by previous experience with the subsoil conditions in Boston and the geological history of the area.

The bottom of the Channel, which is approximately at Elevation —20, is covered by about 8 feet of silt beneath which is a stratum of blue clay varying in thickness between 15 and 80 feet. This clay is relatively stiff at the upper surface and changes with increasing depth to the soft blue clay typical of the Boston area. Underlying the blue clay is a stratum of clay, sand, and gravel, below which is hardpan and bedrock.

It is estimated that a section along the center-line of the Fort Point Channel would appear about as shown in Plate No. 4.

The first major problem is the location and availability





NOTE: EL. 0.00 = MEAN LOW WATER



### SECTION A-A

DRAINAGE & EFFLUENT CONDUIT

SCALE: 1" = 20.0'

PLATE NO. 3

Cross Section of Proposed Seawall across  
Fort Point Channel at Northern Avenue

of a suitable fill material. Preferably, the fill should be a granular soil or stiff clay dredged from a section of the harbor. Transportation costs would be reduced to a minimum if the fill were transported to the required locations by hydraulic pumping.

The second major problem resulting from the use of a hydraulic fill is the magnitude and rate of the resulting settlements of the filled area. The total settlement will be composed of three parts: the consolidation of the blue clay underlying the filled area; the compression of the silt covering the bottom of the existing Channel; and the settlement of the fill itself. The greater part of this settlement must take place before any construction is undertaken at the site and within a reasonable length of time after placement of the fill.

If the Channel is filled with hydraulic clay, a third problem is the design of the pavement and base for the highway which it is proposed to construct along the length of the filled Channel. Hydraulic clay fill will not develop sufficient bearing capacity if it is allowed to remain undisturbed after deposition and must be consolidated by a suitable over-burden in order to increase its strength.

These same problems were encountered in the design and construction of the Logan International Airport in East Boston. It is on the experience and data obtained from that project that the following conclusions are based.

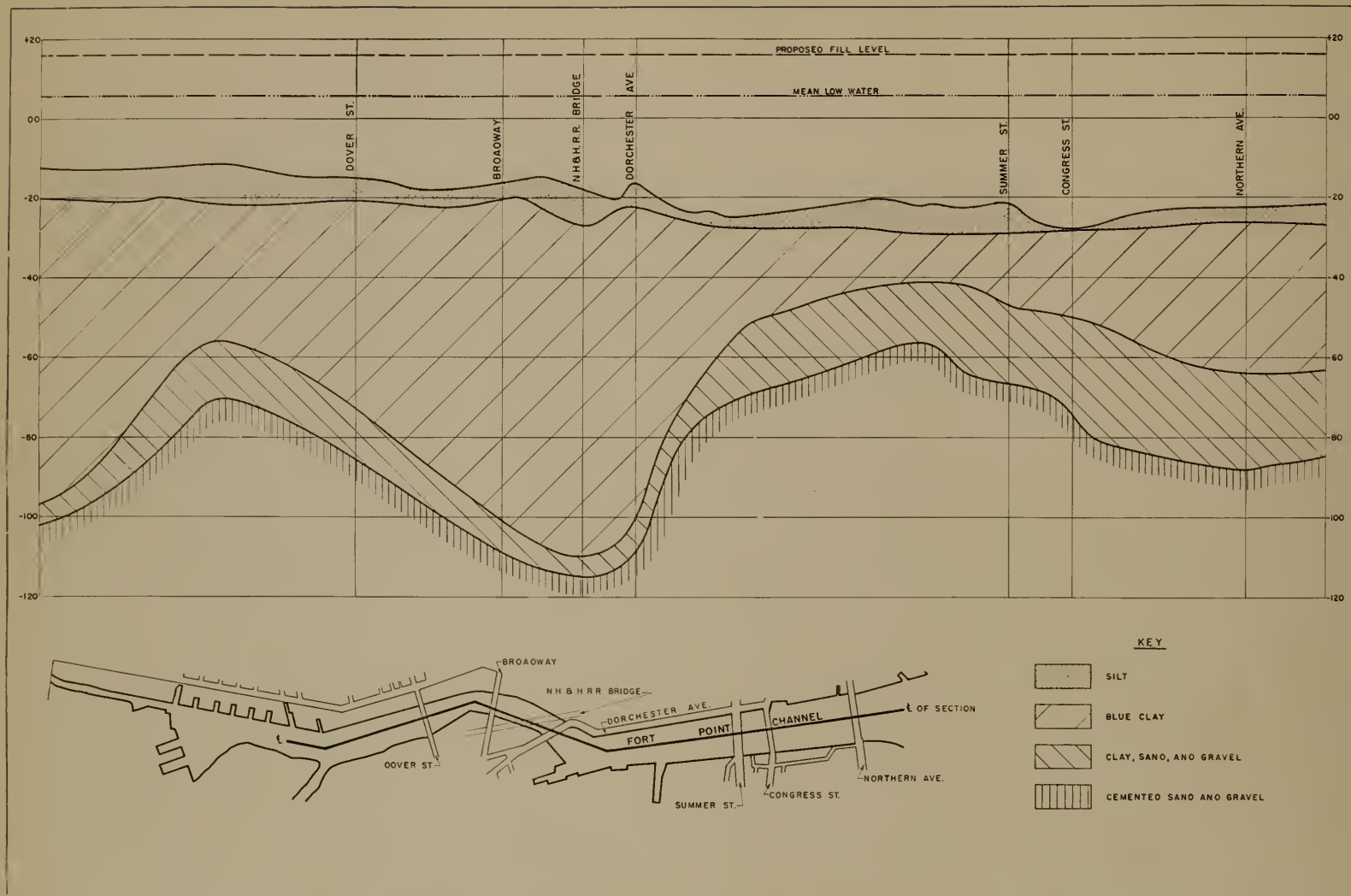
Subsequent settlements can best be reduced by the use of a sand and gravel fill, or alternatively, a fill consist-

ing of the stiff clay which forms the upper crust of the clay stratum underlying most of the Boston area. This crust of stiff clay has been preconsolidated by drying at a previous stage in its geological history to a pressure considerably greater than that to which it would be subjected in the fill. Thus, consolidation of a fill of this material would be mainly that of the matrix of silty clay surrounding the lumps of stiffer clay, and, in addition to causing smaller settlements, would proceed at a faster rate than the primary consolidation of a soft clay deposit.

It is believed that a sufficient quantity of sand and gravel fill or stiff clay fill can be obtained by dredging from the Old Harbor area. However, in order to shorten the distance of transportation and expedite the filling process, this supply could be supplemented, if necessary, with a clay fill pumped from Boston Harbor. The areas from which fill probably could be obtained and a possible location of pipe lines are shown on Plate No. 5. The preliminary engineering estimate indicates that the necessary fill will cost approximately \$4,250,000.00.

Subsequent settlements would be somewhat greater and would take place more slowly, if it should be found that the clay readily available is of the softer type. Nevertheless, the settlements occurring after a reasonable period for consolidation had elapsed, could be reduced to tolerable limits by preconsolidating the fill with a suitable surcharge.

The settlements due to consolidation of the clay underlying the filled area should be relatively small owing to the



Section through Fort Point Channel Showing Estimated Subsoil Conditions



high preconsolidation pressure of the upper lays of this clay. The increase in effective pressure on the foundation clay due to the weight of the fill will be about 1.4 tons per square foot. The resulting maximum settlement is expected to be of the order of 2 inches in a period of two years and 4 inches in a period of ten years after completion of the fill. The settlements due to this cause will be relatively regular and will cause negligible differential settlements of the fill surface.

Settlements due to the consolidation of the fill itself will vary greatly depending on the type of fill material. A clay fill will settle very much more than a fill of granular material. The order of magnitude of the anticipated settlements due to consolidation of the fill and underlying silt, for both types of fill, are discussed below.

(1) With a clay fill, consolidation of the fill itself and compression of the underlying silt will cause large settlements of the filled area. The rate at which these settlements occur will depend on the rate of construction. It will be assumed that the gravel base for a highway will be placed on the fill one year after deposition of the fill and that the pavement will be constructed one year after placement of the base course.

Under these conditions, the settlement at the center of the Channel, where the depth of fill is a maximum, would be of the order of  $2\frac{1}{2}$  feet before construction of the pavement. There would be further settlement of the order of 3 inches in the first year after the pave-

ment is constructed and 5 inches in the first three years. It should be pointed out that these values are average settlements and that they may be exceeded somewhat where unfavorable factors combine to produce particularly bad conditions.

The magnitude of the settlements occurring after construction of the pavement can be reduced by preconsolidating the fill; that is, by preloading the fill for as long a period as possible prior to construction of the pavement. It is believed that a preload of 5 feet of sand and gravel placed on the fill in addition to the base course after a period of one year would produce sufficient settlement in the following year to prevent subsequent settlements exceeding a few inches. If this preload were maintained for two years or a greater preload were used, it would probably be possible to construct a concrete highway over the fill without seriously detrimental settlements.

(2) With a sand and gravel fill, settlements of the filled area would still be very considerable, but would be caused mainly by compression of the underlying silt. It is estimated that the settlement at the center of the Channel, where the depth of fill is a maximum, would be about 10 to 12 inches and that about 70 per cent of this settlement would occur within one year after deposition of the fill.

In the design and construction of Logan Airport, exten-

sive tests were carried out to determine the bearing capacity of the hydraulic clay fill under varying thicknesses of pavement and base. It was found that drying out of the clay could not be counted on to increase the strength of the subgrade. After one year, the dried crust on the clay was only a few inches thick, and the California Bearing Ratio of the clay below the crust was less than 1 per cent, which is too

low for use. It is necessary, therefore, to develop the required strength in the subgrade by preconsolidation under the weight of the pavement and base. The tests at Logan Airport indicate that a 3 foot thickness of pavement and base on a hydraulic clay fill would develop ample strength in the subgrade after one year to provide a satisfactory foundation for a highway.



ROXBURY

BOSTON

SOUTH STATION

PIPE LINE

CALF PASTURE

SOUTH BOSTON

AREA TO BE DREDGED

ALTERNATE AREA TO BE DREDGED

CONNECTS WITH EXISTING CHANNEL

OLD HARBOR

PLEASURE BAY

LOGAN AIRPORT

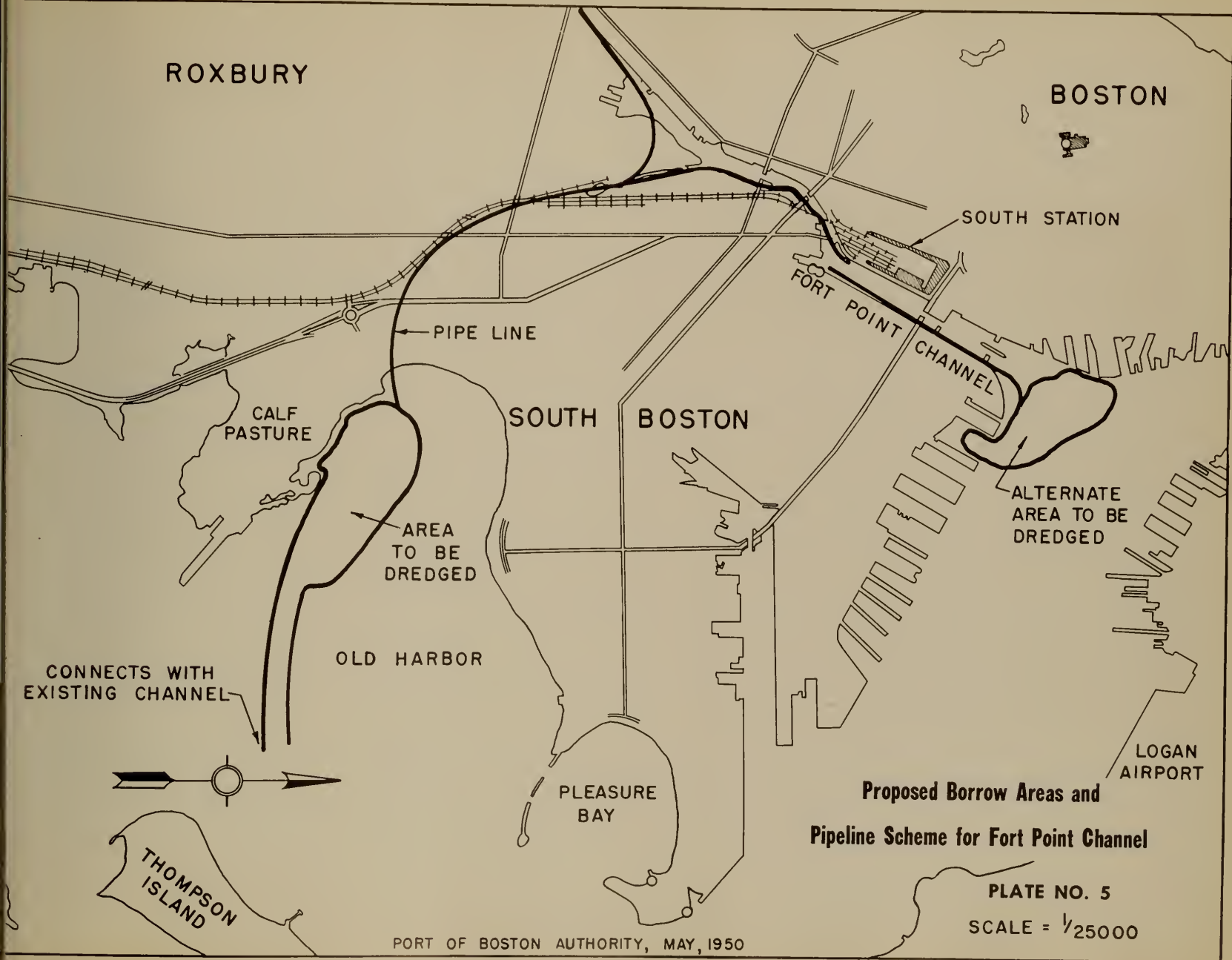
**Proposed Borrow Areas and  
Pipeline Scheme for Fort Point Channel**

PLATE NO. 5

SCALE =  $\frac{1}{25000}$

PORT OF BOSTON AUTHORITY, MAY, 1950

THOMPSON ISLAND



## UTILIZATION OF THE SITE

Upon the completion of the construction of the drainage conduit and sea-wall and the consolidation of the fill, there will become available a site of approximately 234 acres, which will have a number of important uses. This site consists of a strip of land the width of the reclaimed area plus the land takings from Northern Avenue to Southampton Street, as shown on Plate No.14.

It is intended that the cost of the project, contemplated in this study and report, be offset by the complete utilization of the reclaimed land. Reference is made to the section entitled "Financial Aspects of the Proposed Project" to illustrate the methods by which this initial cost will be amortized.

The subsections which follow give a detailed description of the various facilities which may be located on this new site.

### PROPOSED RELOCATION OF THE BOSTON CENTRAL ARTERY

The most important utilization of the reclaimed land will be to provide a new route for the Boston Central Artery from a point near the intersection of Northern Avenue and Atlantic Avenue to a traffic interchange near Southampton Street and Massachusetts Avenue.

The section entitled "Analysis of Recent Developments" shows that the Master Highway Plan provides for the Boston Central Artery to run between Northern Avenue and Massachusetts Avenue. Any one of several routes is possible for this proposed highway. However, any overland location must involve elevated construction. Necessarily, there will be ramps for traffic interchanges which will cover considerable areas and cause land damages beyond that to the site for the main roadway.

Elevated construction is inherently much more expensive than surface construction and the overall cost of this section of the highway, by whatever route may be chosen, must be substantially more than the cost of corresponding facilities along the Fort Point Channel route. The highway would be brought down from the intersection of Northern Avenue and Atlantic Avenue and would be depressed under the Congress Street bridge and under the other bridges. Beyond the bridges, it would run at surface level to the proposed traffic circle near Massachusetts Avenue.

The grades on this highway would be satisfactory as is shown by the profile on Plate No. 6.

The depressed roadway would require special construction as shown on Plate No. 6. Pile foundations and heavy construction to withstand hydrostatic uplift would be necessary where the underpasses are below mean low water. Beyond the bridges the construction would require little grading and would be most economical.

Plate No. 15, showing the overall layout of the project, clearly indicates the route of the new Boston Central Artery. It should be noted that four traffic lanes in each direction have been provided for most of the length of this section. This is feasible with surface construction at very little additional cost, whereas three lanes each way are the maximum that are practical with the elevated construction. Plate No. 6 shows a typical highway section as recommended by the Department of Public Works.

The antiquated drawbridges at Northern Avenue, Con-

gress Street, Summer Street, Dorchester Avenue, Broadway, and Dover Street would be eliminated. All would be replaced by fixed spans except at Northern Avenue where a surface road over the fill would replace the old bridge.

The building of these new bridges is considered a function of the Department of Public Works since they are closely connected with the traffic interchanges of the proposed Boston Central Artery. Plate No. 7 is a perspective of the proposed fixed Summer Street Bridge.

Traffic interchanges are indicated at Congress and Summer Streets, Broadway and Dover Street and the intersection of Southampton Street and Massachusetts Avenue. The exact details of these interchanges would be a part of the design of the Boston Central Artery by the Department of Public Works.

The estimated cost of the Boston Central Artery exclusive of land taking, using this route and including the replacement of the five bridges, is approximately \$11,000,000.00. This consists of two figures: \$6,000,000.00 for the roadway and \$5,000,000.00 for the bridges and interchanges. This construction would be accomplished by the Commonwealth of Massachusetts Department of Public Works and would not be considered a part of the project of reclaiming Fort Point Channel and South Bay.

The major utilization of the reclaimed land will be for purposes connected with the Boston Central Artery so that the Department of Public Works should assume a reasonable share of the cost. It is suggested that a fair allowance for



the highway site would be \$11,000,000.00. It would be financed by the Department of Public Works as a land taking cost for the Boston Central Artery.

The use of the Fort Point Channel route for the Boston Central Artery will eliminate the necessity for elevated construction and permit the use of depressed or surface level roadway. This type of construction will be considerably less expensive. Preliminary engineering estimates indicate that a saving in the magnitude of \$10,000,000.00 in construction costs will accrue to the Commonwealth of Massachusetts by the use of this route.

In addition to this, the City of Boston would save \$150,000.00 annually. This represents the cost of maintenance and operation of the City-owned bridges which would be replaced by fixed spans. Added to these economies are the taxes which will be saved to the City of Boston by destroying much less revenue-producing property than by following any other route. The total of these savings amounts to a substantial figure.

The timing of the project is a most important issue. The Department of Public Works estimates that the second section of the Boston Central Artery, which would incorporate this new route, would be ready for construction in about three years. This means then that the preparation of plans for building the drainage conduit and filling the Channel should begin early in the summer of 1950 in order to meet this time schedule.

The need for immediate action is apparent if the project

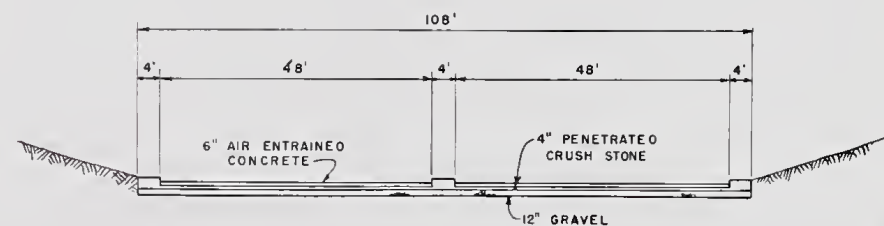
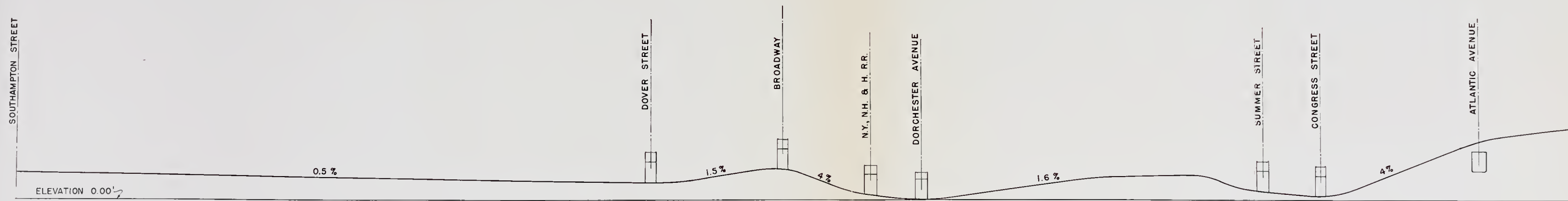
as proposed herein is to be accomplished in sufficient time to gain the benefits outlined.

## PROPOSED SITE FOR CONSOLIDATED WHOLESALE PRODUCE MARKET

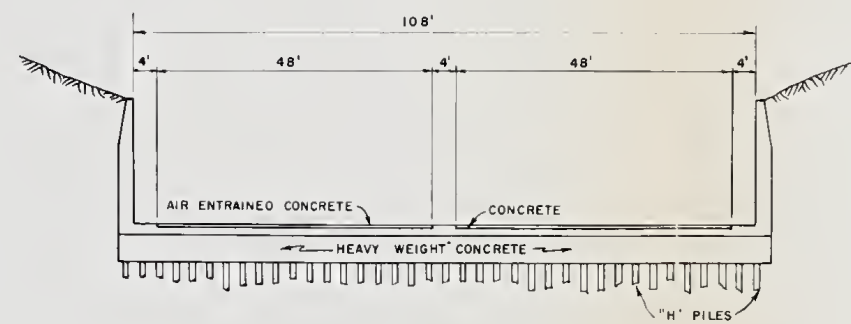
Faneuil Hall and the Quincy Market have more sentimental than practical value to Metropolitan Boston. The existing facilities provide for only a portion of the market business, while the rest of the district is scattered over a large area, which includes many narrow side streets. This results in costly delays and an excessive amount of cross-hauling. The buyers and sellers, who are an important element in any market operation, have little space in which to conduct their business or even park their cars and trucks. There are no railroad connections or platforms for loading and unloading produce. The resulting conditions, while picturesque, are not only unsanitary, but notoriously inefficient.

Recently the Boston Market Authority Commission made a thorough study of the market area needs of the Metropolitan Boston area. In their report, dated 1949, they stated, "In order to overcome the defects in the present market, it is recommended that present facilities be abandoned and the market be located in a new area." In this report it was brought out that no one area is available near downtown Boston large enough to contain the whole market operation.

Careful studies by the Commission, in cooperation with the marketing engineers of the United States Department of Agriculture, determined that to serve the full needs of



TYPICAL ROAD SECTION



LOW LEVEL ROAD

Profile and Typical Cross Sections of Roadway  
New Route for Boston Central Artery







View of Proposed Bridge Carrying Summer Street  
Over New Route for Boston Central Artery

PLATE NO. 7





the area on a long-time basis it would require a site of not less than 115 acres.

It has been suggested that the new area might be divided into two parts; one located somewhere near the Massachusetts Avenue-Southampton Street triangle, and the other in Charlestown, convenient to the Sullivan Square area.

In the development of the Fort Point Channel, South Bay, and adjacent areas, a site would be produced containing slightly less than 100 acres. This is somewhat smaller than the site recommended by the Market Authority Commission, but probably could be made to serve with careful attention to efficiency in planning. The site is centrally located, being only two miles from downtown Boston. Proximity to the proposed Boston Central Artery would give it rapid access to practically any part of the Metropolitan area. The main line tracks of the New York, New Haven and Hartford Railroad are adjacent, thus making it possible to have direct railroad connections for distant freight. It also would be quite simple to bring in the Boston and Albany tracks by extension of trackage from the South Station.

After a survey of some thirteen sites for a new produce market, the Boston Market Authority Commission, in the above-mentioned report, comments on the proposed site as follows: "If the City and others plan the highway along Albany Street, and the South Bay area can be closed and made available for the market development, this site has a preferred status over other sites considered. It is the best market location for local retail buyers and with the proposed

new highway, it would be readily accessible for out-of-town buyers. Likewise, the new highway makes the site desirable for the receipt of produce from distant areas by truck and rail. The site can be enclosed with a fence to prevent non-market traffic from entering the site since no public streets are in the site. It also should be noted that this site is only a short distance from the fish wharf, public cold storage, the Boston Market Terminal, several chain store warehouses, wholesale grocery warehouses, and various other facilities used by handlers of related products at wholesale. This would be to the advantage of buyers who would want to obtain fish and other produce on visits to the market in Boston. The site will be not only a good site for the consolidation of the various trade interests to be relocated, but it will also permit buyers to be near to other lines of the industry for which provisions for their inclusion in the market is not made in the initial development."

The foregoing analysis by the Boston Market Authority Commission indicates that the proposed market site would be an excellent one for a produce market. It is contemplated that the proposed new route of the Boston Central Artery extension would traverse a portion of the site. However, such a plan still leaves a large area for ultimate development of a produce market. The site as shown on the General Plan, Plate No. 15, allows for a 200 foot strip of land adjacent to the railroad. Such space is required by the railroad for "shake-up" of freight cars in order to have them in their proper positions prior to entering the market area.

With the proposed new route of the Boston Central Artery extension located as shown, the market becomes thoroughly accessible, particularly for out-of-town trucks.

The proposed Consolidated Wholesale Produce Market, as shown on the Market Plan, Plate No. 9, and perspective view, Plate No. 8, indicates the ultimate development for a produce market. It is so designed that it could be built and extended by increments if necessary. There are approximately 330 store units (25 feet by 80 feet), some with basements, first floor, and second floor, some with basement and first floor, and some with first floors only. An arrangement such as this provides maximum flexibility of space for the various types of produce dealers concerned. Units are planned so that there is a railroad platform at the rear, and a trucking platform at the front, thereby permitting an efficient and direct flow of goods. Considerable space is devoted to direct railroad-to-truck transfer and there is a produce auction building with platforms located front and rear. The proposed produce market is dominated by a central building which would contain facilities for cold storage, central heating, general offices, offices for allied industries and restaurants. Adjacent to the buildings, there are farmers' and truckers' sheds with platforms. In addition, the site contains ample streets with parking area of sufficient size to accommodate approximately 1,000 trucks and other vehicles, not including space for trucks in front of store platforms.

If the ultimate central market scheme provides for a unified market area, this site would most nearly fulfill the re-

quirements of location and area, and would with adjacent areas be large enough for many years to come. If the final decision of the Commonwealth is to provide two balanced market areas, the South Bay area could easily provide 50 to 75 acres of the required area, leaving a substantial balance for new industrial development.

Without the taking of certain railroad and other property, by eminent domain or purchase, insufficient land would be provided for even a partial development as market area. It is felt that the Port of Boston Authority should control this site in its entirety rather than be only in control of the section which is reclaimed. The cost of this site has been included in the section entitled "Financial Aspects of the Proposed Project", in order to put the economics of the project on a sound basis.

## ALTERNATE USES FOR SOUTH BAY SITE

If it is the final decision of the Commonwealth that the South Bay site should not be used for a central market development, there are several other uses for the area which would fulfill long felt and urgent needs, and for which suitable sites have not previously been available.

**a) Stadium and Convention Hall.** For many years the need has been seen for facilities in this area which would provide greater attendance at outstanding athletic events, as well as a hall large enough for conventions of national, political and fraternal organizations. Both of these functions would necessitate extensive sites in order to provide parking space

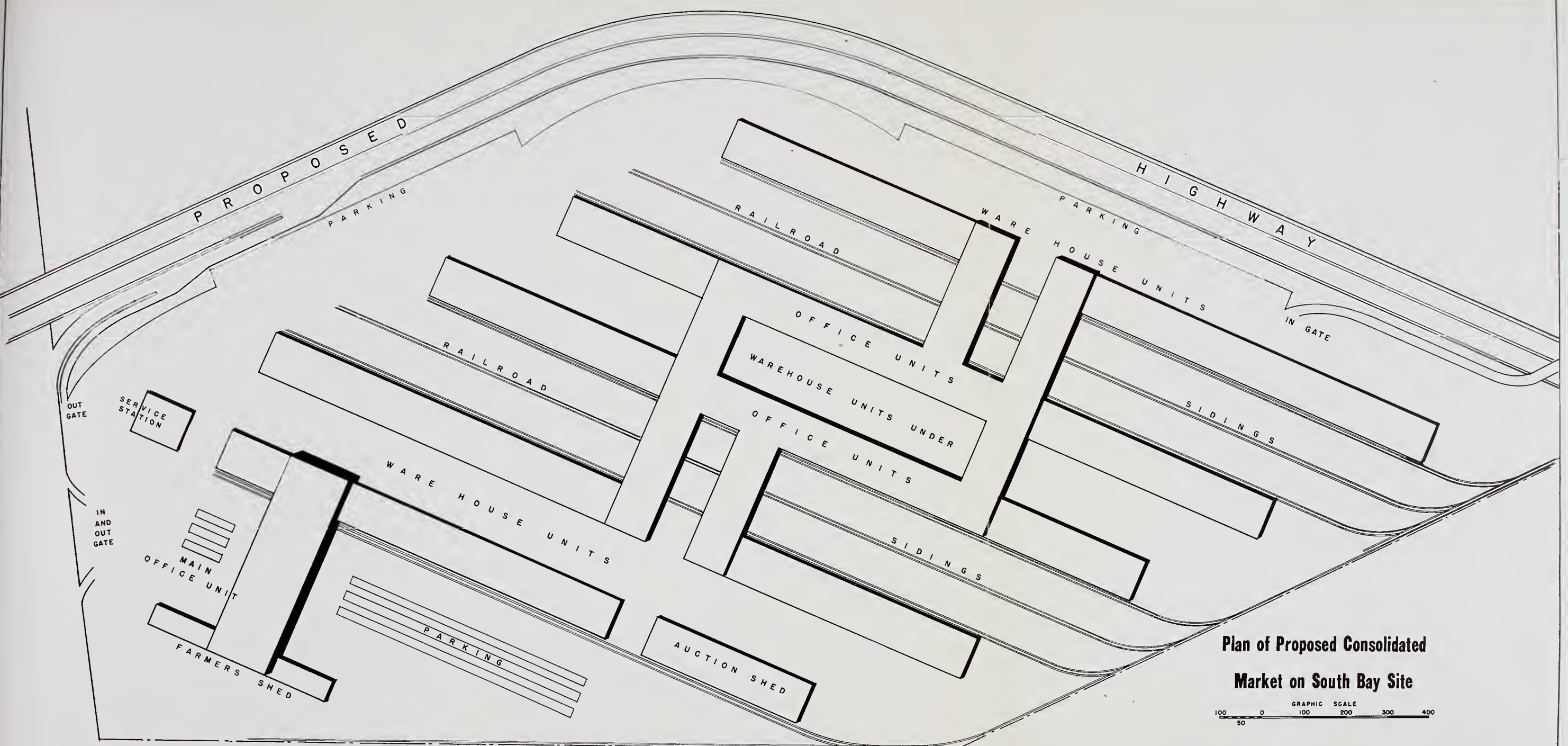


View of Proposed Consolidated  
Market on South Bay Site









Plan of Proposed Consolidated  
Market on South Bay Site







for large numbers of cars. Such a site, in a central location, could not be assembled from existing lands except at prohibitive cost. A site would become available if the South Bay area were not used for market purposes. As an alternate use, a combined Municipal Stadium-Auditorium is proposed, a sketch of which is shown in Plate No. 10. This structure, entirely feasible from an engineering standpoint, would provide for a huge stadium-amphitheatre seating 75,000 persons, connected with an enclosed auditorium-arena seating 10,000. Parking area surrounds the whole for a total of 12,000 cars at 190 cars per net acre. The stadium-arena is so planned that a portion of the arena may be used as a covered stage for the Stadium. Dressing, stabling and storage facilities in one will serve for both. This structure would have a capacity sufficient to accommodate events comparable to the largest held in other sections of the country. The Stadium could also serve as the principal Boston major-league ball park, releasing the valuable lands at Fenway Park and Braves Field for other purposes.

**b) Housing Sites.** This area is not one which would ordinarily be considered suitable for housing purposes. However, with the nuisance of Fort Point Channel gone, the great size of the area makes it possible for a community character to be developed independent of its surroundings. This site of approximately 100 acres, if used for housing purposes, could easily, on present standards, accommodate from 4,000 to 6,000 families, a city within a city of from 15,000 to 25,000 persons, still leaving ample space within the project for parks

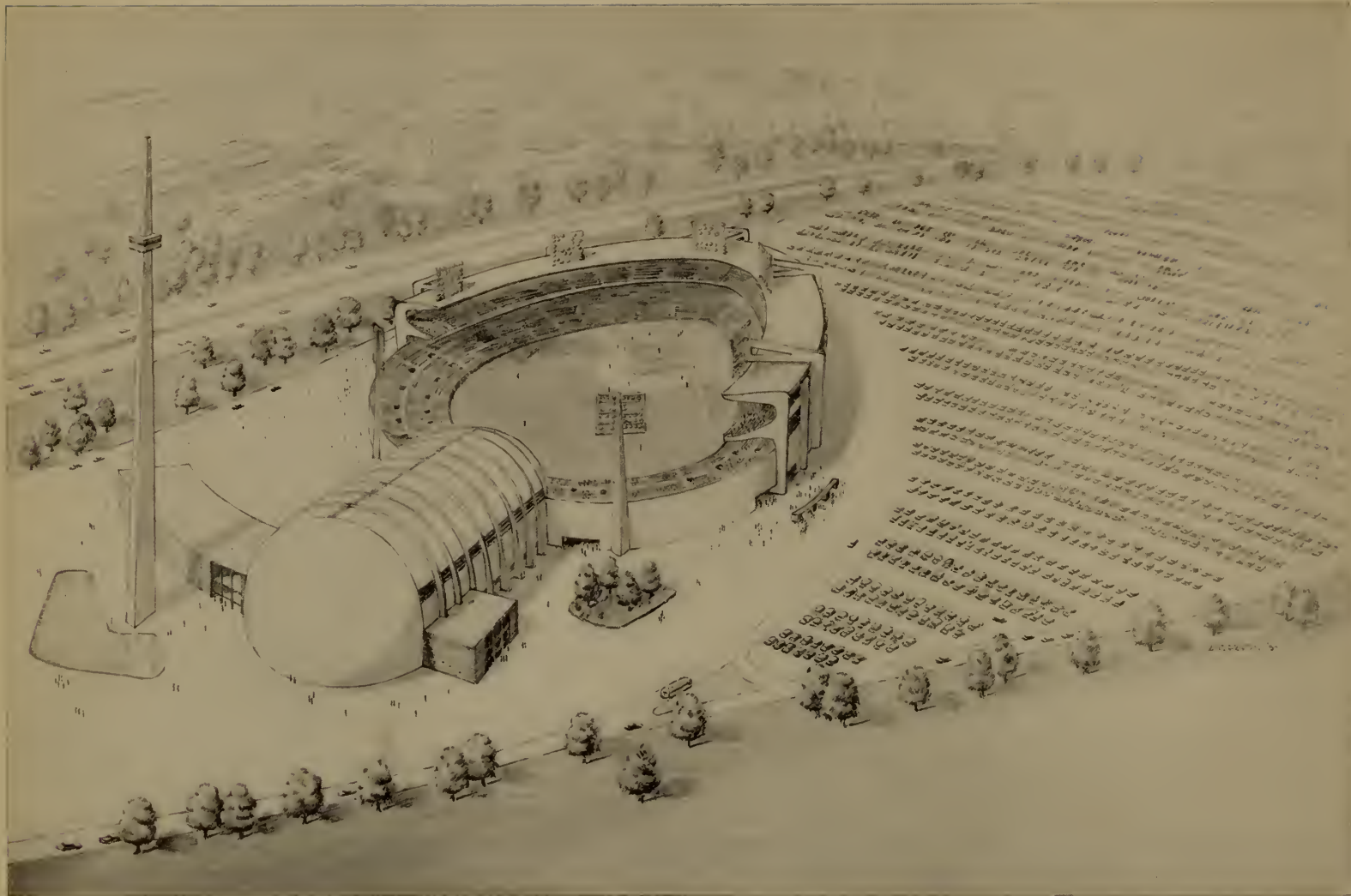
and playgrounds, together with the necessary shopping and recreational areas.

**c) Industrial Areas.** Should none of the foregoing uses be deemed expedient, this area could be developed as a prime industrial site. Rail and through highway connections are adjacent. Public transportation is near. Parking can be provided in any desired quantity. Sea water is at hand for industrial use or for air conditioning. The area is central, and the total cost of the land to the Commonwealth will be considerably less than the going price for the very few prime, central, industrial sites still available.

## PROPOSED SITE FOR UNION BUS TERMINAL

Boston has never had an adequate and efficient bus terminal facility. At present, many bus companies operate their terminals in the overcrowded Park Square area, thus contributing additional congestion to traffic and parking problems. Not only is there insufficient room for busses in this area, but terminal facilities are inadequate and outmoded, with little or no room for expansion. Also, the present Eastern Massachusetts Terminal at Haymarket Square may soon be demolished as a result of construction of the Boston Central Artery through this area. Therefore, it seems advisable to seek a new location for these essential facilities.

A new Union Bus Terminal is proposed as a possible use for a portion of the developed area. This terminal should be located opposite the U. S. Parcel Post Building as shown on Plate No. 11. This location is ideal since it would supplement



**View of Proposed Municipal Stadium — Convention Hall**

the travel facilities of the South Station and provide greater service to commuters and distance travelers alike. Also, by locating the terminal adjacent to the Boston Central Artery, it becomes more accessible to long distance busses. Local busses, taxis, and the subway are readily available for travel within the City.

Upon completion of the Boston Central Artery, local and long distance busses will be able to move to and from their destinations with considerably greater ease and resultant saving of time. It is proposed that Dorchester Avenue be divided into two one-way streets, thus providing easy and direct access to and egress from the new bus terminal. Local busses would arrive and depart via Dorchester Avenue and Summer Street, while long-distance busses would make principal use of the Boston Central Artery together with the necessary ramps to approach and leave the terminal area. Hence, the two types of bus traffic would be at once distinct and separate from one another within the City and a progressive step taken toward the elimination of traffic tie-ups.

It is suggested that the new bus terminal site would first be used as an automobile parking area until such time as the Boston Central Artery reached ultimate development and funds are available for construction of the terminal. The site will accommodate approximately 400 cars at that stage and by virtue of its locale would keep them out of the "heart" of the City.

The proposed Union Bus Terminal is planned as a two-

level structure with a parking deck on the roof. Busses enter and leave the terminal by ramps, as shown on Plate No. 12. The lower level is devoted chiefly to local (M.T.A.) busses with provisions for a maximum of 20 busses at one time. An underground tunnel with direct access to the South Station is provided for safe pedestrian travel to and from the terminal. Considerable attention has been given to the importance of rentable areas as a source of revenue for the terminal. Hence, much space on the lower level concourse is assigned to concessions, rental areas, and a cafeteria, all of which are located where pedestrian travel is heaviest. Ticket offices, information booth, waiting space, toilets, lockers, and a baggage room are also provided. Taxi stands are located outside the main entrance to the terminal.

The upper level is allocated chiefly to docks for long distance busses — 30 in all. Busses enter and leave this level via a two-way ramp. This system provides positive control over the busses at all times by means of a control station located at the head of the ramp just inside the terminal. Stairs at each end of the bus dock allow passengers to reach the main concourse below. Space is also provided for bus drivers, storage, and heating and ventilating equipment. It should be noted that bus areas within the terminal will have unglazed openings in the exterior walls. These openings together with bus entrances and exits will afford a source of supply for fresh air. Concourses opening to the loading areas will be "pressurized" with fresh air to prevent the entrance of exhaust fumes. All fumes will be expelled through the

roof by means of mechanical ventilation.

The roof deck is entirely devoted to automobile parking and is reached via a ramp. There is space here for approximately 200 cars. Two stairways are provided to give patrons easy access to the terminal facilities or the street below.

If for any reason the proposed Union Bus Terminal should not materialize, a site would become available which could bring substantial sale or lease revenue to the Port of Boston Authority and attractive tax revenues to the City for many years to come. While no detailed market analysis has been made of the location, it is obvious that the size of the site, with its nearness to the Post Office, South Station, and downtown and South Boston business districts, together with its convenience to both local and long distance transportation, would give it a value approached by no other piece of property in Boston.

## **PROPOSED SITE FOR CITY HOSPITAL EXPANSION**

The Boston City Hospital, while ideal from a standpoint of location, has about reached its limit so far as development of facilities is concerned. Even a casual examination of the grounds will show that there is no room whatever for expansion of facilities and, in fact, insufficient area in which to park the cars of the staff physicians. The hospital trustees not only feel that this parking area is extremely important, but it is their desire to provide in the near future for new

nurses' quarters and laboratories as well, with possible nursing units to be built in the future. The development of the South Bay and Roxbury Canal area provides a substantial site immediately adjacent to the hospital grounds which should provide for their expansion needs for many years to come. The facilities could be connected by either bridge or tunnel, thereby providing easy access across Albany Street.

## **PROPOSED SITE FOR BOSTON UNIVERSITY- MASSACHUSETTS MEMORIAL HOSPITAL MEDICAL CENTER**

To the east of the City Hospital are the facilities of Boston University Medical School. Their present plans for expansion in this location cannot be realized without costly land purchase of developed properties nearby. As part of the development of South Bay and Roxbury Canal, it is proposed that a portion of land on the south side of Albany Street, as shown on the General Plan, Plate No. 15, be allocated to the Boston University School of Medicine and Massachusetts Memorial Hospital for a new, up-to-date medical center. The advantages of having this center adjacent to and combined with the facilities of the Boston City Hospital are obvious.

## **INDUSTRIAL AND COMMERCIAL SITES**

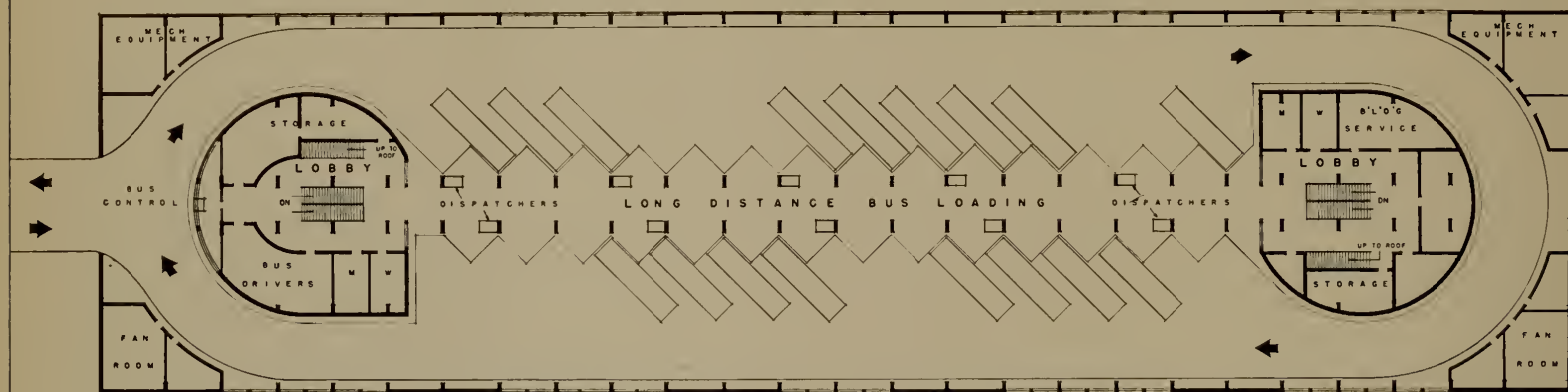
In conjunction with the reclamation development of the Fort Point Channel and South Bay and the proposed relocation of the Boston Central Artery, there is much abutting



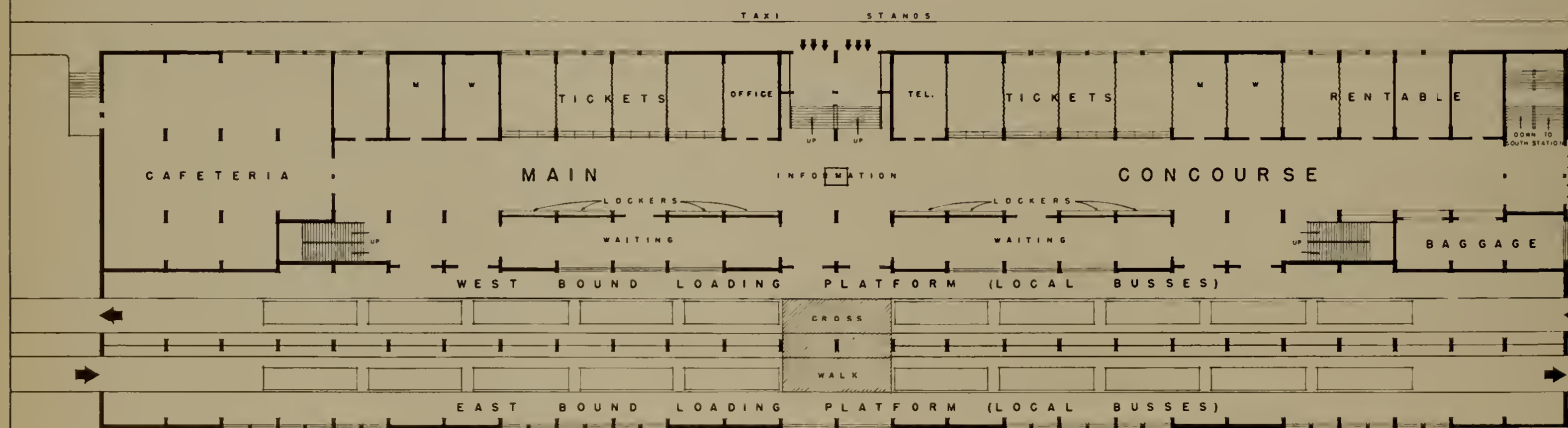


**View of Proposed Union Bus Terminal on Fort Point Channel Site**





UPPER LEVEL



LOWER LEVEL

PORT OF BOSTON AUTHORITY, MAY, 1950

property that can be utilized to good advantage. Not only would well developed land bring additional tax revenue to the City, but it would also serve to enhance and reclaim this area. Associated with the relocation of the Boston Central Artery, there are several tracts of land which become available for the development and refinement of the area.

Aside from the land which is allocated for the Consolidated Wholesale Produce Market, the Union Bus Terminal, the City Hospital, and the Medical Center expansion, it is proposed that certain other areas would be developed. In all probability, however, these tracts of land would first become automobile parking areas in order to provide immediate land use.

The first area under consideration is the property bounded by Northern Avenue, Sleeper Street, Congress Street, and the Boston Central Artery. This site represents an area of 200,000 square feet which has been valued at \$5.00 per square foot or a total valuation of \$1,000,000.00. This property is ideally situated for industrial use since it is close to the downtown business district and within easy commuting distance via train, bus, or auto. Railroad connections are readily available and long distance and local trucks could have direct access to the site via the Boston Central Artery. Projected port facilities on the opposite side of Northern Avenue increase the value of this site.

The second site available for development is the property at the corner of Congress Street and Dorchester Avenue extension. This land abuts the Boston Central Artery to

the south and should be an extremely desirable location for an office building or possibly a hotel. This land has been valued at \$350,000.00 since it represents an area of 50,000 square feet at \$7.00 per foot. The location of this site brings it within easy reach of everyone, whether by train, bus or auto.

Finally, there is another site at the corner of Albany and Dover Streets, which would be available for development either for an office building or for light industry. This site is particularly accessible by auto or truck, since it abuts the Boston Central Artery in an area which has a variety of access and egress ramps. The site contains an area of 75,000 square feet and has been valued at \$3.50 per square foot or a total of \$262,500.00.

## FRINGE DEVELOPMENT

Present studies indicate that the total volume of traffic to be handled by Boston's proposed expressways will increase steadily over the next two decades. Therefore, much of the value and purpose of the Boston Central Artery will become obscured if sufficient and convenient parking areas are not included. Parking areas adjacent or relatively close to the Boston Central Artery must be developed initially in order to provide for the greater influx of automobiles expected to use the new highway.

As stated in this report, under the section entitled "Industrial and Commercial Sites", much of the property in the Fort Point Channel and South Bay areas would be allocated

for parking, particularly in the early phases of development. Several of the available sites are of adequate size to accommodate up to 500 cars and are also within easy reach of public transportation facilities serving downtown Boston. Until such time as additional off-street parking garages are completed, it would be of vital importance to eliminate as many cars as possible from the downtown streets. When additional off-street parking facilities are available, these areas adjacent to the Boston Central Artery could be developed for office buildings, industrial sites, warehouses, hotels, bus terminals and the like.

In addition to the industrial sites mentioned, there are approximately 150,000 square feet between Dorchester Avenue and Northern Avenue in a strip on the south side of the new proposed Artery. This land has been valued at \$1.00 per square foot and represents a total of \$150,000.00. The property would be excellent for off-street parking purposes.

These sites represent the permanent off-street parking areas which will accommodate the requirements of the South Boston traffic and parking. By judicious planning, an M.T.A. bus line route could be established from these parking sites to the downtown area.

## EXTENDED PORT FACILITIES

In addition to the various uses proposed for the reclaimed land and adjacent areas, the erection of the sea-wall at Northern Avenue gives the Port of Boston Authority another opportunity to improve the facilities of the Port.

Pier No. 1 on Northern Avenue, as shown in the General Layout Plan, Plate No. 15, at the present time has a very restricted use because of its peculiar shape. The closing of Fort Point Channel and the moving of the harbor line will make possible the reconstruction of Pier No. 1 into a more usable facility.

The final design of the new sea-wall could incorporate provisions for a dock area which would enhance the large industrial site proposed for the opposite side of Northern Avenue. In the event that this combination dock and sea-wall does not materialize, a small pleasure or commercial craft landing could be constructed.

The Refuse Receiving Station of the City of Boston Department of Public Works, which would be rendered useless by this project, could be relocated in this area with a minimum of inconvenience to the City.

The Calf Pasture land abutting Old Harbor in South Boston has never been developed as an ocean terminal facility because of the expense of dredging a deep water channel. It is proposed to remove the fill for this project from Old Harbor, so as to create a channel from this area to existing deep water. This will permit practical development of this section for water front purposes.

## MISCELLANEOUS SITE UTILIZATION

The City of Boston has requested that 60,000 square feet of land be reserved for an incinerator, which will be located in the Southampton Street area and will serve as a

source of heat and power for the City Hospital.

Provision must be made for the relocation of the Refuse Receiving Station, since it is the intention of the City of Boston Department of Public Works to continue hauling a large portion of the refuse to Spectacle Island.

The City of Boston Department of Public Works yards, which are now located on Albany Street and are to be taken in connection with this project, will have to be relocated on the reclaimed land. The City of Boston, through its Department of Public Works, has requested a combined area of 430,000 square feet which is subdivided into a paving yard, central garage and yard, sanitary yard, sewer and water yard.

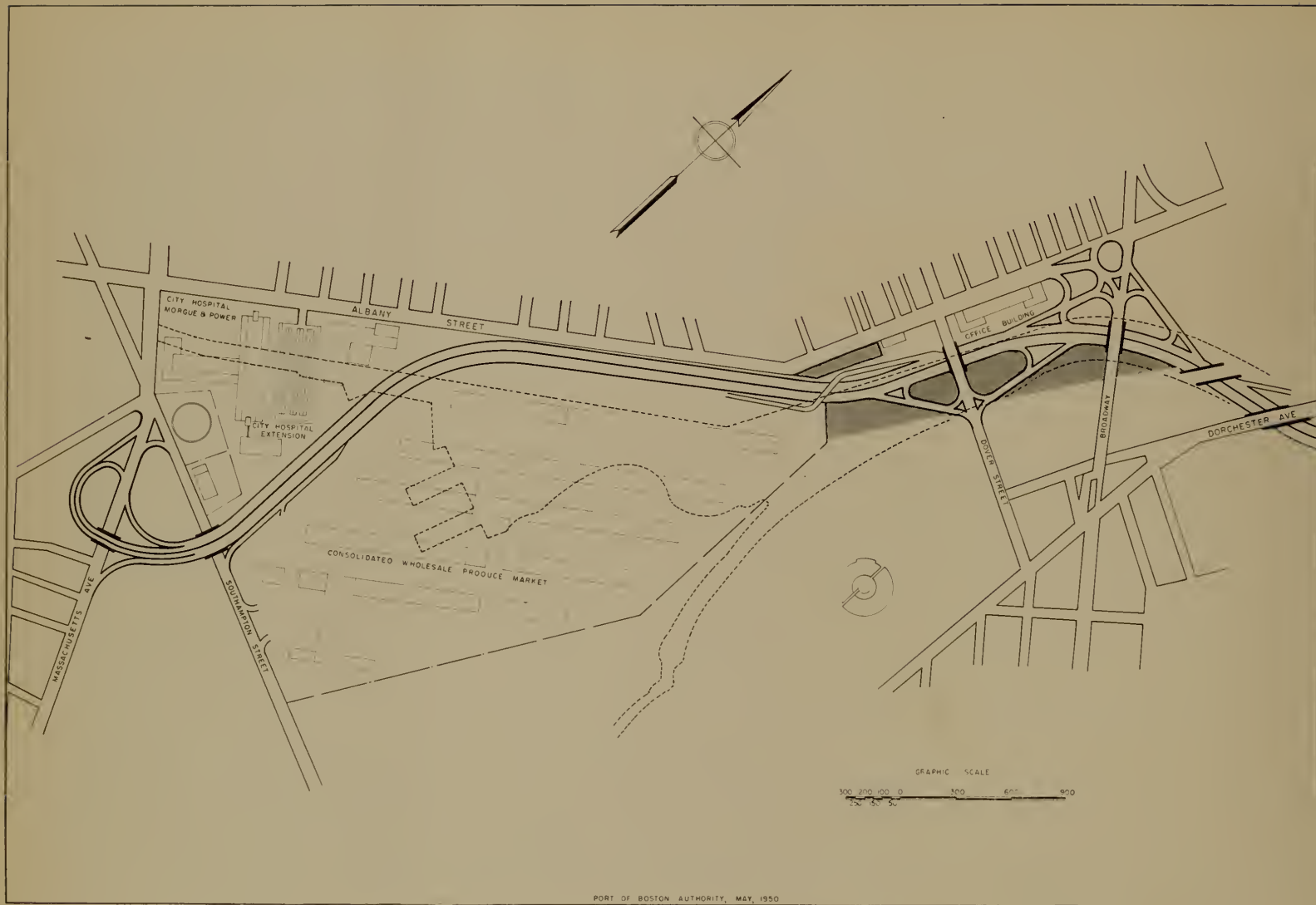
Tentative sites for the relocation of these various yards are shown as shaded areas on Plate No. 13. The exact details of these new yards will be worked out in conjunction with the City of Boston Department of Public Works.

## ROAD AND AREA BEAUTIFICATION

The Boston Central Artery has been conceived as a means of providing a more efficient and direct route into and out of Boston. Such a highway can also lend real beauty to the City. It would be wasteful to set aside any land areas solely for the purpose of landscaping and beautification. However, by the very nature of highway design, areas are created not only in median and boundary strips, but also within the interchange loops which can be planted in a way to provide beauty and dignity for this otherwise barren downtown area.

Bridges which will span the artery will be of simple and straightforward design. The steel and concrete of these bridges together with the smooth, ribbon-like quality of the Artery and the green of trees and planting should provide a dramatic, yet beautiful, view within the heart of the City.





**Proposed Areas to be Allotted to City of Boston Department of Public Works**



## LEGAL ASPECTS OF THE PROJECT

It is generally held that the Commonwealth, subject to the laws of the United States, has full powers and rights in and over public waters, such as the Fort Point Channel, South Bay, Dorchester Brook, and Roxbury Canal and the lands beneath such waters. Therefore, the closing and filling of this waterway would cause the reclaimed land to become Commonwealth property. However, the question of land taking and land damages as well as the proposed form of legislation which would be necessary must be discussed at this time in order to present the complete legal aspects of the project.

### LAND TAKING

In the text of the section entitled "Utilization of the Site", a variety of projects were described. In order to complete these projects and make the overall scheme economically feasible, it is necessary that there be some land takings in excess of those made mandatory by the filling in of the area. The purpose of the excess land taking is to provide the suitable site for a new route for the Boston Central Artery and to provide the Port of Boston Authority with the control and administration of sufficient adjacent lands to amortize the original cost of the project either by the sale, lease or other disposition of large enough sites to accomplish this purpose.

Appendix A is a tabulation of the owners of property in the area to be reclaimed. The lot numbers shown on Plate No. 14 correspond to lot numbers in the tabulation. Appendix A also shows the area, the type and use of existing buildings, the use of the waterways and the assessed valuation of such property. The shaded lots on Plate No. 14 indicate the privately-owned land which is to be taken, while the cross-hatched lots indicate the land belonging to either the Commonwealth or the City of Boston.



The reason for taking lots numbered 8 through 42, inclusive, 53, 57, 59a, and 60 is to provide the site for the new route of the Boston Central Artery at this point. The Artery has been located tentatively on the Albany Street side of the existing waterway in order to leave a large, single site, which would provide a source of income to the Port of Boston Authority.

Lots numbered 4, 5, 6, 7, 51, 52, 54, 55, and 56 are proposed to be taken, in order to insure another large area, which is to be used as a site for the City Hospital expansion and the Boston University-Massachusetts Memorial Hospital Medical Center, described in the section entitled "Utilization of the Site".

Lots numbered 58, 59, 61 through 72, inclusive, are to be taken in order to insure approximately a 100 acre site for the Consolidated Wholesale Produce Market or the Municipal Stadium and Convention Hall. In any event, these, together with the other lots, will insure sufficient revenue to the Port of Boston Authority to make the project economically sound. Tentative arrangements have been made with the New York, New Haven and Hartford Railroad to provide for the relocation of the large loop track which is located in Lot No. 72 within the project limit line.

The estimated cost of all the property to be so taken is \$3,605,080.00, which consists of \$2,005,080.00 of privately-owned property other than New York, New Haven and Hartford Railroad property. The value of the Railroad land effected is \$1,600,000.00, which includes \$300,000.00 for the

relocation of the loop of track now located on Lot No. 72.

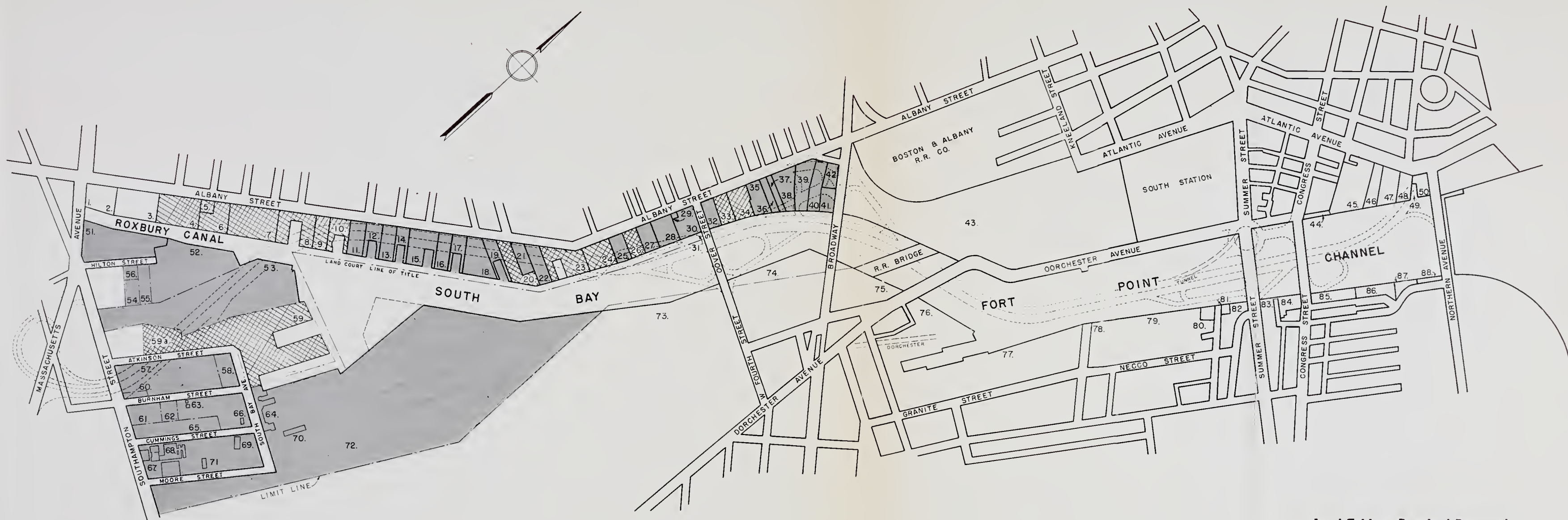
The value assigned to the railroad land to be taken is considered to be equitable in view of the benefits which would accrue to the New York, New Haven and Hartford Railroad by the development of this site and the elimination of the operation and maintenance of a costly drawbridge.

Commonwealth and City-owned land amount to \$340,200.00 and \$813,700.00, respectively, or a total of \$1,153,900.00, and are not included in the above since the City of Boston has agreed to the taking of the City-owned land without the payment of any damages.

## LAND DAMAGES

The problem of damages to land from Dover Street to the junction of Southampton Street and Massachusetts Avenue is confined to the question of land taking and damages incidental thereto. The involved question of riparian rights, wharf rights and the many and varied claims to the use of certain disputed sections of this area will be at an end since all the rights of the abutters in whatever form they may exist will now be vested in the Commonwealth by the land takings which are proposed.

The question of special damages, however, arises in the area from Dorchester Avenue to the Northern Avenue Bridge. The only apparent claims which the abutters to this section of the waterway may present to the Commonwealth are claims for the loss of wharf rights or licenses to use the waterway. The question of incidental damages relative to



**Land Takings Required Proposed  
Fort Point Channel and South Bay Project**



the extinguishment of these wharf rights has been discussed with the Attorney General's Office, and it was the consensus of opinion, though unofficial, that a fair figure to set as special damages for the loss of these wharf rights is 10 per cent of the assessed valuation of the abutting properties. Accordingly, the figure of \$150,000.00 has been carried in the section entitled "Financial Aspects of the Project", to cover these claims.

This figure, however, does not include the Gillette Safety Razor Company or The American Sugar Refining Company located on Lots No. 76 and 77 respectively. Conferences with the Gillette Safety Razor Company indicate that they will claim no rights in the Channel if their use of cooling water is not interrupted.

Negotiations are now under way with The American Sugar Refining Company with respect to their relocation at a new site since they are the only substantial user of the waterway at this time. However, this will be a subject of special legislation and is not to be included in the scope of the project. A conveyor system can be set up to permit The American Sugar Refining Company to continue operation until such time as they can be relocated.

## LEGISLATION REQUIRED

There is included herein, as Appendix B, a proposed form of legislation which will give the Port of Boston Author-

ity the necessary power to borrow money and to purchase or take by eminent domain such land as may be necessary to complete the project outlined in this study. It further authorizes the Port of Boston Authority to administer the reclaimed land and the adjacent areas which are to be improved in order to amortize the initial cost of the project as set forth in the section entitled "Financial Aspects of the Project".

Since the United States Government protects the rights of property owners located on the navigable waterway, the Commonwealth must initiate a bill to have the Congress of the United States declare the area a non-navigable waterway of the United States. The Commonwealth would then have the power and right to abandon Fort Point Channel, South Bay and Roxbury Canal as a navigable waterway and relocate the existing Commonwealth harbor lines. The proposed legislation further empowers the Port of Boston Authority to initiate such action as may be necessary to accomplish this end.

Preliminary conferences held with the Division Engineer, New England Division, Corps of Engineers, United States Army, indicate the Corps of Engineers is in favor of the elimination of Fort Point Channel and South Bay as a waterway; but a definite plan of action for the closing of the waterway (as outlined in the proposed form of legislation) must be first taken by the Commonwealth.



## FINANCIAL ASPECTS OF THE PROJECT

The Port of Boston Authority would be authorized by an Act of the Legislature to complete the construction of the conduit, the construction of the sea-wall, the filling of Fort Point Channel, South Bay, Roxbury Canal and Dorchester Brook, including all the necessary land taking and other incidental items. A draft of such a proposed form of Legislation is attached to the report as Appendix B. The cost of the construction of the Boston Central Artery, together with bridges and traffic interchanges, is not included as a part of the cost of this project.

### COST OF THE PROJECT

The cost of this project, as shown in the "Financial Analysis", is divided into three parts: land taking, construction and miscellaneous.

The cost of private land has been taken as the assessed valuation plus 40%. The cost of the railroad property, including the relocation of the loop, is arbitrary, but is considered a reasonable allowance for the land involved. The extinguishment of wharf rights has been set up as approximately 10% of the assessed valuation of the abutting property, except that excluded, as described under the section entitled, "Legal Aspects of the Project". The value of Commonwealth and City property has been included for the purpose of this estimate, although it has been agreed that this land should be acquired without the payment of damages.

The actual construction costs have been estimated by applying suitable unit prices to preliminary designs which have been prepared. These unit prices have been adjusted to meet the anticipated construction conditions.

The miscellaneous costs cover the necessary preliminary surveys and borings, the engineering work during the design and construction of the project, interest which must be paid on notes outstanding during the



# Financial Analysis

## ESTIMATED COST OF PROJECT

### LAND TAKING

Estimated cost of private land	\$ 2,005,080.00
Estimated cost of Railroad property including loop relocation	1,600,000.00
Cost of extinguishment of various rights of abutters	150,000.00
Estimated value of Commonwealth property	340,200.00
Estimated value of City of Boston property	813,700.00
Total Land Cost	\$ 4,908,980.00

### ESTIMATED CONSTRUCTION COST

Cost of proposed conduit	\$ 5,198,000.00
Estimated cost of seawall	700,000.00
Estimated cost of fill	4,250,000.00
Total Estimated Construction Cost	\$10,148,000.00

### MISCELLANEOUS COST

Interest on Bonds, Engineering, Contingencies and Administration Costs	2,596,920.00
Total Estimated Cost	<u>\$17,653,900.00</u>

## METHOD OF FINANCING

Land contributed by Commonwealth	\$ 340,200.00
Land contributed by City of Boston	813,700.00
Allocation from Highway Fund	<u>11,000,000.00</u>
	\$12,153,900.00
Commonwealth Bonds to be issued	5,500,000.00
	<u>\$17,653,900.00</u>

## ASSETS FOR RETIREMENT OF BONDS

1. Industrial site near Northern Avenue (200,000 sq. ft. @ \$5.00)	\$1,000,000.00
2. Business site near Congress Street (50,000 sq. ft. @ \$7.00)	350,000.00
3. Business site at location shown tentatively as bus terminal (150,000 sq. ft. @ \$7.00)	1,050,000.00
4. Industrial site near Albany Street (75,000 sq. ft. @ \$3.50)	262,500.00
5. Miscellaneous sites for parking and small buildings between Dorchester Ave. and Northern Ave. (150,000 sq. ft. @ \$1.00)	150,000.00
6. Site available for relocation of market (about 100 acres @ 75c per sq. ft.)	3,250,000.00
	<u>\$6,062,500.00</u>

NOTE: No value has been assigned to areas which may be devoted to public uses: about 29 acres near Massachusetts Avenue and Albany Street for Medical Center, etc., and about 10 acres in scattered areas for City of Boston Department of Public Works Yards and for a City Incinerator.

construction period, together with administrative costs and a reasonable allowance for contingencies.

It should be noted that the total cost shown is \$17,653,900.00, which includes Commonwealth and City property. Deducting the value of these lands from the total cost will leave \$16,500,000.00. This is the amount which the Commonwealth is to authorize for carrying the project to completion.

## METHOD OF FINANCING

The method of financing the project is logically divided into two distinct parts. Because the Department of Public Works will receive a new and more desirable site for the location of the Boston Central Artery, it is proposed that there be transferred from the Highway Fund the sum of \$11,000,000.00 as their proper share of the cost of the project.

This is to be considered a land taking cost of the Department of Public Works for that section of the Boston Central Artery. The balance of \$5,500,000.00 would then be financed by the sale of Commonwealth bonds. The Port of Boston Authority would administer the reclaimed land and the bonds are to be amortized by the sale, lease, or other disposition of such land shown as assets in the "Financial Analysis".

It will be impossible to sell or lease all of these sites immediately for their eventual industrial or business purposes. However, most of the downtown areas could be opened for off-street parking soon after the completion of the project and should realize an income more than sufficient to take care of carrying charges.

It is estimated that about 65% of the bond issue should be amortized within three to five years after completion of the project.



## BENEFITS TO BE REALIZED

The study which has been concluded shows that substantial benefits will accrue to the Commonwealth of Massachusetts and to the City of Boston if the project outlined in this report is carried to completion.

The most substantial benefit to be realized will come from the use of the reclaimed area as a site for a section of the proposed Boston Central Artery. The saving to the Commonwealth of Massachusetts is estimated to be \$10,000,000.00 in construction cost alone by the substitution of a surface type roadway for an elevated structure.

The existing antiquated and inefficient market area in the North End is scheduled to be abandoned. The development proposed here will make available an excellent and desirable site for the relocation of this market as a unit and it will bring about far more sanitary and efficient handling and improved distribution of provisions. This improvement in efficiency should produce benefits in the public interest by reducing the cost of food.

The reclamation of the area will create new sites which will be available for the increased demands of business, industry, and off-street parking. These sites will become assets to the Commonwealth, a source of revenue to the City, and will aid in the amortization of the construction bonds for the project.

Use of the new route precludes the need for an elevated structure south of Northern Avenue. The depressed or surface level highway, the pleasing bridge designs and parkway-like landscaping will eliminate the unsightly and unsanitary nuisances and enhance property values throughout the entire locale.

Six drawbridges now span the waterway, and even their infrequent openings disrupt traffic, adding to the already serious congestion which is one of the City's most pressing problems. The use of the proposed

plan will replace these draw spans with fixed modern spans and should substantially relieve the existing situation. Furthermore, the City of Boston will realize an estimated annual saving of \$150,000.00, which is the cost of maintenance and operation of the draw spans.

The filling of this area, combined with the relocation of the Boston Central Artery, will result in the destruction of a minimum amount of taxable property. Property values which will be destroyed by the land taking for this project will be more than replaced by the additional business and industrial sites established when the reclaimed land is sold or leased.

For many years Calf Pasture has been proposed as a site for a marine terminal, but the cost of dredging the channel from the shipping lane to the site has been prohibitive. By dredging the fill for the proposed development from Old

Harbor, which abuts Calf Pasture, the marine terminal would immediately become feasible.

The major proposals for the utilization of this site have been discussed with and favorably commented on by the authorities concerned, namely, the Commonwealth of Massachusetts Department of Public Works, Department of Public Health, Boston Market Authority Commission, and the State Planning Board; the City of Boston Mayor's Office, Department of Public Works, Street Commissioner, Traffic Commissioner, and the Planning Board; the Boston Chamber of Commerce; the Greater Boston Development Committee and the various civic and business organizations which may be affected by or interested in the scope of the proposed project, and it is the general consensus of opinion that the benefits described would be real and tangible.



## CONCLUSIONS

Numerous commissions have studied and reported on the filling of Fort Point Channel and South Bay and almost invariably recommended that this area be filled. In the past, however, the benefits to be realized were comparatively slight, and they have not justified the substantial expenditure necessary to carry out the project.

The use of this area has declined steadily until, today, it has fallen into a general state of dilapidation and contributes very little to the commerce and industry of the City of Boston and the Commonwealth of Massachusetts.

At the same time, new problems have arisen which must be solved by the Commonwealth and the City. A desirable site is needed for a section of a vital highway; a location is needed for the market area, the present one being inadequate; new parking areas convenient to the downtown business district are imperative; new land is needed for industrial and commercial expansion.

The completion of this project would fulfill these requirements admirably and at the same time would eliminate the long-standing nuisance. This solution of these pressing problems would far more than offset the surrender of water front facilities which are practically dormant. The proposed uses of the site will make the development economically justifiable. Tangible benefits to be derived meet and even exceed the expenditures which must be made. The intangible benefits, while impossible to assess, are nevertheless substantial.

The present-day situation makes it most desirable to embark on this project without delay. In fact, decisive action must be taken immediately if the project is to best meet the conditions that exist today. It is, therefore, recommended that the proposed legislation contained in Appendix B of this report be given immediate and favorable consideration and unanimous approval.







Plan of Fort Point Channel and South Bay after  
its Proposed Reclamation and Development



# APPENDIX A

## DATA PERTAINING TO PROPERTIES ADJACENT TO FORT POINT CHANNEL AND SOUTH BAY BOSTON HARBOR

No.	Lot No.	Owner	Occupant	Use	Area (Sq. Ft.)	Assessment — 1948 Value in Dollars			Type of Construction	Present Waterfront Use
						Land	Building	Total		
ROXBURY CANAL, FORT POINT CHANNEL & SOUTH BAY										
ALBANY STREET										
1		City of Boston	Boston City Hospital	Path'gy, Garage, Morgue, Laundry	113,560	175,500	912,000	1,087,000	Bk. - 4 & 5 - Excellent Bk & Conc. - 5 - Excellent	Waterways: Not used
2	774	Ditto	Ditto	Garage	43,775	87,500	600,000	687,500	Bk. - 4 & 5 - Excellent	Waterways: Not used
3	754 to 750	Ditto	Ditto	Boiler House Heater Plant	69,785	88,000	312,000	400,000	Bk. - 2 & 3 - Excellent	Waterways: Not used
4	710 to 694	Ditto	Water Supply Dept.		72,900	91,000	100,000	191,000	Bk. - 3 - Excellent	Waterways: Not used.
5	690 to 680	Ditto	Lamo Div., Sewer Div.		8,000	10,000	1,000	11,000	W - 3 - Fair	Waterways: Not used.
6	678	Ditto	Public Works Dept., Sewer Div.		45,120	56,400	3,600	60,000	W - 1 - Fair	Waterways: Not used
7	650	Ditto	South City Stables	Sanitary Div., St. Cleaning Div.	90,800	114,000	26,000	140,000	Bk. - 2 & 3 - Good	Waterways: Not used.
8	636	Ditto	P.W.D. Paving Div.	Paving Yd.	63,200	79,000	6,000	85,000	Yard & Sheds	Waterways: Not used
9	624	Ditto	Same	Garage	26,024	20,900	149,100	170,000	Bk. - 2 - Excellent	Waterways: Not used.
10	606	Ditto	Coleman Disposal Co.	Garbage & Refuse Loading	39,511	35,800	6,200	42,000	Bk. - 2 - Exc. 24,196 Solid 8,459 Landing 6,856 Dock	Loading Scows.
11	590 588	Wilmer L. Mead, Inc.	W. L. Mead, Inc. Atlas Canvas Co.	Trucking	33,905	12,800	6,200	19,000	Wd.- 2 - Poor 19,075 Solid 11,470 Pile 3,360 Dock	Waterways: Not used.
12	580	George M. Byrne	Same	Yard & Shed. Storage	34,141	10,000		10,000	Shed Corr. Stil. 19,048 Solid 11,651 Pile 3,442 Dock	Ditto.
13	570 to 558	Cowan Lumber Co	Same	Office Lumber	28,738	12,700	12,300	25,000	Elevator - Bk. & Wd. - 2 - Gd. 16,138 Solid W Bk. - 2 - Fair 9,150 Pile 3,450 Dock	Unloading barges.
14	548	Ditto	Ditto	Ditto	28 378	12,400	4,600	17,000	Wd.- 2 - Good 15,618 Solid 9,260 Pile 3,500 Dock	
15	538 to 526	John H. Coleman	Cowan Lumber Co.	Lumber Yard	62,147	36,000	4,000	40,000	Wd.- 2 - Gd Fr. 33,100 Solid 21,700 Pile 7 347 Dock Wd.- 2 - Fair	Waterways: Use restricted.

No.	Lot No.	Owner	Occupant	Use	Area (Sq. Ft.)	Assessment — 1948 Value in Dollars			Type of Construction	Present Waterfront Use	
						Land	Building	Total			
ROXBURY CANAL, FORT POINT CHANNEL & SOUTH BAY — Continued											
ALBANY STREET — Continued											
16	520	Wm. C. Norcross	Wm. C. Norcross Co.	Lumber	30,826	9,300	6,700	16,000	B & Wd. - 2 - Pr. 15,680 Solid 11,071 Pile 4,075 Dock	Waterways: Not used.	
17	516, 514 512	Ditto	Ditto Vacant	Lumber	30,826	9,400	17,600	27,000	Wd. - 2 - Pr. 15,680 Solid 11,071 Pile 4,075 Dock	Ditto	
18	498 496	Henry Kimball	Vacant		61,274	18,400		18,400	27,674 Solid 29,400 Pile 4,200 Dock	Ditto	
19	486	Henry Bromberg	Albany Auto Parts	2nd Hand Auto Parts	33,795	8,800		8,800	Shed - Wd. - 1 - Fair Poor	Ditto	
20	484 to 468	City of Boston	Same St Francis Refuge	Mission	38,187	9,900		Assessment Unknown	Conc. Bl. - 1 - New	Ditto	
21	460	Greater Boston Distr	Same	Store & Magazine Distr.	15,336	7,300	57,700	65,000	Conc. - 2 - Excellent	Ditto	
22	450 446	Charles A. Warner	1. Same. 2. Cape Cod Ladder 3. S. End Roof, 4 & 5. Others	Bldg. Supplies, Whse., etc.	27,645	9,500	2,500	12,000	Wd. - 2 - Fair 22,745 Pile Wd. Bk. - 2 - Gd. 4,900 Dock	Ditto	
23	440	Met Transit Authority	Same Albany Lumber Co.	Parking, Vacant Lumber	57,389	17,200		17,200	Wd. - 1 - Fair	Ditto	
24	416, 414 410	City of Boston	Farm	Vacant	38,280	23,000		23,000	None	Ditto	
25	406	Downes Realty Co.	Vacant. Farm	Vacant	18,000	6,300		6,300	Billboard None	Ditto	
26	388	City of Boston	Public Works Dept., Paving Div.	Office & Yd.	23,375	15,500	1,000	16,500	Bk. - 1 - Excellent	Ditto	
27	378, 376, 374	American Coal Co.	Same	Office & Yd	18,331	9,100	4,600	13,700	Wd. - 1 - Fair Wd. - 1 - Poor All Pile	Waterways: Used once a year.	
28	370 to 366	Animal Rescue League	Same	Animal Care	35,010	27,500	25,000	52,500	Bk. - 2 - New	Waterways: Not used.	
29	346	Priscilla Baking & Lunch Co.	Same	Diner	3,600	3,200	4,000	7,200	Wd. - 1 - Good	No water rights.	
30	344	Aronson Bros., Inc.	Vacant	Parking, Vacant	31,473	24,300		24,300	29,373 Solid 2,100 Pile	Waterways: Not used.	
31		City of Boston	None	None, Located in Channel	1,078	600		600	Under Water	Waterways: Not used.	
32	328 322	Wm. J. & Ellen B. Gargill	Gargill Gen. Exp. Co., Diamond Trans. Co.	Trucking, Food Trucking	16,200	15,100	9,900	25,000	Conc. Bl'k & 13,200 L'd, D'k Wd. - 1 - Gd. 3,000 Pile	Ditto	
33	320	City of Boston	Acme Motor Parts	Auto Parts, Junk	22,473	28,100		28,100	Wd. - 1 - Poor (Shed only)	Ditto	
34	312	Ditto	Public Works Dept.	Storage & Parking	28,859	46,200	300	46,500	Wd. - 1 - Poor	Ditto	
35	278 276	James & Walter Kirley	Same	Lumber Yd.	20,941	15,400	1,100	16,500	Wd. - 1 - Fair 13,041 Solid Wd. - 2 - Gd. 7,900 Pile	Ditto	
36	274	D. F. & A. Saltzberg	Modern Electro-Plating	Electro-Plating	11,267	12,300	17,700	30,000	Bk. - 1 - Gd. 10,667 Solid 600 Pile	Ditto	
37	266	Mary T. Murphy	Troy Garage, Inc.	Garage	9,694	11,400	19,600	31,000	Bk. - 1 - Good	Ditto	
38	218	American Ice Co	Boston Ice Co.	Ice Making	22,524	29,300	35,700	65,000	Bk. - 1 - Exc. 18,296 Solid 1,800 Pile 2,428 Dock	Ditto	



No.	Lot No.	Owner	Occupant	Use	Area (Sq. Ft.)	Assessment — 1948 Value in Dollars			Type of Construction	Present Waterfront Use
						Land	Building	Total		
ROXBURY CANAL, FORT POINT CHANNEL & SOUTH BAY — Concluded										
ALBANY Street — Concluded										
39	210	Albany Garage Co.	Terminal Motor Mart	Garage	34,843	34,800	75,800	110,600	Bk. - 2 - Good	Ditto
40		Ditto	Vacant	Parking	25,292	15,200		15,200		Ditto
41	375-377 Broadway	Crosstown Syndicate	Vacant	Manu.	13,983	13,900	161,100	175,000	Conc. - 7 - Good Excellent	Ditto
42	367 Broadway	John T. Keefe		Warehouse	10,419	11,700	18,300	30,000	Bk. - 5 - Good	No waterway.
43		B. & A. R.R., B. & Prov. R.R., Old Colony, N.Y., N.H. & H. R.R.	Same	Yards and Tracks South Station	1,352,089	11,492,800	5,507,200	17,000,000	No buildings abutting.	Waterways: Used for cooling.
44		Comm. of Mass	Gray Line	Wharf & Water	11,200	6,000		6,000		Sight-seeing Cruises: Seasonal
ATLANTIC AVENUE										
45	516 to 490 516 Rear	Boston Edison Co.	Atlantic Auto Park Joseph P. Manning City of Boston Own Bldg. Fire Dept.	Parking for 630 Cigars, etc. Pumping Station	76,177	480,000	50,000	530,000	Bk. - 3 58,000 solid 18,000 Pile 177 Dock	Definite water rights.
		Ditto							Bk. - 1 - Excellent	Channel water not used
46	488 to 484, 480	Ditto	Same	Power Plant	24,775	138,400	166,600	365,000	Bk. - 4 15,534 Solid 8642 Pile & Wharf 599 Dock	Definite water rights
47	476 to 474	Ditto	Ditto		19,920	85,300	200	85,500	800 & 8,900 Solid 6,500 Pile & Flats 3,720 Dock	
48	474 to 470	Ernest Henderson, et al.	Various	Harbor Bldg Office—Mhdsg.	35,460	266,000	1,234,000	1,500,000	Conc. - 13 - Excellent	Waterways: Not used.
49	466	City of Boston	Coleman Disposal Co.	Garbage	20,750	115,000	50,000	165,000	St. - 2 14,150 Solid 2,800 Pile 3,800 Dock	Loading Scows
50	440 to 336 15 to 17 Northern	United States of America	Wilby's Truck Terminal	Gas Station Parking 20 cars	19,049	140,000	10,000	150,000	Steel Front 11,299 Solid Cin. Bl. - 1 3,950 Piles & Flats Stucco 3,800 Dock	Waterways: Not used. Uses 2,000 gal. min., 24 hrs. day.
		Ditto: Subrented by	James Hook Co.	Lobsters			6,000	6,000	Wd. - 2 - Gd. Met. - 1 - Gd. Own Building	74 Tanks. Ship by water.
ROXBURY CANAL, FORT POINT CHANNEL & SOUTH BAY — SOUTH										
FROM MASSACHUSETTS AVENUE TO WEST FOURTH STREET										
51	834-830 Mass.	Blue Coal Co.	Batchelder-Whittemore Coal Co.	Coal Handling	1 2,942 120,068	2,900 156,000	34,000	2,900 190,000	Storage Sheds & Conveyor	None: Unloading tower in disuse
52	41 Hilton	Harcon Corp	H. Cohen & Co., Inc Same	Junk Yard	1 22,383 132,937	5,500 63,200	200 3,300	7,500 66,500	Bk. - 1 - Good Garage - 1 Bk.	Waterways: Used approx. twice year.
53	100 S'hampton	Downs Realty Co.	Same	Lumber	306,260	55,000	50,000	105,000	2 Wd 40,000 Solid 1 & 2 Poor 266,260 Filled	Unloading lumber cargoes occasionally
54	33 Hilton	Steif Rubber Mfg. Co.	Same	Mfg. of Rubber	16,937	6,000	8,200	14,200	Bk. - 2 - Good	No waterfront

No.	Lot No.	Owner	Occupant	Use	Area (Sq. Ft.)	Assessment — 1948 Value in Dollars			Type of Construction	Present Waterfront Use
						Land	Building	Total		
ROXBURY CANAL, FORT POINT CHANNEL & SOUTH BAY — SOUTH — Continued										
FROM MASSACHUSETTS AVENUE TO WEST FOURTH STREET — Concluded										
55	27-29 Hilton	Master Chemical	Same	Chemicals	15,705	5,500	6,500	12,000	Bk.- 2 - Good	No waterfront.
56	23 Hilton	Bessie T. Bass	Rudolph Bass	Paper & Twine	11,889	4,800	4,200	9,000	Bk.- 3 - Good	No waterfront.
57	Atkinson	Samuel Hurwitz	Vacant	Vacant Lot	168,625			Assessment Unknown		No waterfront.
58	117 Atkinson	Ditto	General Waste Co.	Wool Waste Stge.	27,107		6,000	Assessment Unknown	Bk.- 2 - Fair	No waterfront.
59a 59	Atkinson S. Bay	Comm. of Mass.	Traffic Commission Downes Lumber	1. Traffic Comm. 2. Lumber Yd. & Mill	46,082 363,336	69,100 223,000	20,900 10,000	90,000 233,000	Wd.- 1-Gd. Pr. 262,366 Solid 64,970 Flats 36,000 Dock	Waterfront. Not used.
60	130 S'hampton	George H. Mollahan	Bay State Lumber	(Bldg. burned)	7,404		4,000	Assessment Unknown	Wd.- 2 - Poor	No waterfront.
61	136 S'hampton	Ditto	Albany Bronze	Foundry	27,490		8,000	Assessment Unknown	Galv. Iron Good	No waterfront.
62	47 Burnham	George H. & Harry N. Oshry	General Metal Co.	Metal Work	13,175		2,000	Assessment Unknown	Corr. Iron - 1 - Good	No waterfront.
63	Burnham	N.Y., N.H. & H. R.R.	*Aronfsky	Scrap Iron & Junk			1,600	1,600	3 Sheds Wood	No waterfront.
64	100 S. Bay	Ditto	*Hathaway Patterson	Lumber			10,200	10,200	Fireproof Bk. 2nd & 3rd Cl. 2 - Fair Outside	No use of waterfront.
65	160 S'hampton	Ruth L. Kopelman, et al., Trst.	Boston Supply Co.	Plumbing & Hardware	63,271	38,000	75,000	113,000	Cem. Block - 1 - Excellent	No waterfront.
66	Cummings	N.Y., N.H. & H. R.R.	*Bay State Auto Supply Co	Oil Range & Heating			6,300	6,300	Sheds & Oil Pumps	No waterfront
67	202 S'hampton	Ditto	*Waldo Bros.	Mason Supplies			22,500	22,500	Wd.- 3 - Terracotta	No waterfront.
68	93 Cummings	Ditto	*Travers Homer	Building Supplies			7,500	7,500	Wd.- 2	No waterfront.
69	149 Cummings	Ditto	Boston, Coal, Oil & Wood	Coal, Oil & Wood			1,500	1,500	Wd.- 2 - Pr.	No waterfront.
70	S. Bay	Ditto	*Boston Lumber	Lumber & Storage of Tile			2,000	2,000	Sheds	No waterfront.
71	Moore	J. Sax & Co.	J. Sax & Co.	Scrap Metal				Assessment Unknown		
72		Ditto	N.Y., N.H. & H.R.R. in Ward 8	Flats & Tracks	4,094,495	2,456,500	81,700	2,538,200	Bldgs.: Fill & Flats	Waterways: Not used
73		Ditto	Ditto in Ward 6	Ditto	215,159	253,500		253,500	Flats	Waterways: Not used
74		Ditto	Ditto	Ditto	16,200	2,400		2,400	Flats	Waterways: Not used.
75		Ditto	Ditto	Ditto	132,078	232,300	200	234,000	Flats	Waterways: Not used.

Owns building but rents land from R.R.

\*Owns building but rents land from R.R.

No.	Lot No.	Owner	Occupant	Use	Area (Sq. Ft.)	Assessment — 1948 Value in Dollars			Type of Construction	Present Waterfront Use
						Land	Building	Total		
ROXBURY CANAL, FORT POINT CHANNEL & SOUTH BAY — SOUTH — Concluded										
FROM DORCHESTER AVENUE TO SUMMER STREET										
76	100 W. First	Gillette Safety Razor	Same	Mfg.	270,829	370,000	160,000	530,000	Plant & Offices Power Station, Park	Water use estimated at 24,000,000 gal. 24 hr. day
77	47 Granite	American Sugar Ref. Co.	Same	Sugar Ref.	405,054	756,600	1,532,400	2,289,000	Plant & Offices	2 Steamers 'wk. with raw sugar. Water use estimated at 15,000 gal. day
78	60 Mt. Wash.	Dehydrating Process Co.	Same	Dried Fish Plant	33,592	33,500	41,500	75,000	Wd. & Bk.- 2 - Good	4 Oil Tankers 'year, 4 Barges month. Water use approx 4,800 gal. day..
79	Mt. Wash. Summer	Boston Wharf Co.	Warehouse No. 13, Inc.	Whses., Wool, etc.	442,522	557,600	17,400	575,000	139,000 Developed	Waterways: Not used.
80	Necco Ct.	Ditto	Ditto	Whse.	10,949	23,800	1,200	25,000	Wd.- 1 - Good	Waterways: Not used.
81	Ditto	Ditto	Vacant	Parking	2,823	3,200		3,200	No Bldgs.	Waterways: Not used.
82		Ditto	Various	Storage & Sales	8,800	111,200	66,800	178,000	Bk.- 5 - Good	Waterways: Not used.
FROM SUMMER STREET TO CONGRESS STREET										
83	252 300 Summer	Moses Williams, et al., Trust	Various	Wool	19,080	171,000	204,000	375,000	Bk.- 8	Waterways: Not used
84	305 Congress	Strazzulla Bros.	Same	Tomato Packers	16,324	47,000	13,000	60,000	Wd.- 1 - Good	Waterways: Not used
FROM CONGRESS STREET TO NORTHERN AVENUE										
85	308 312 Congress	Atlas Term. Stores, Inc.	Same & Assorted Leasees	Storage Whse	65,509	146,500	148,500	345,000	Misc. 1 & 2 Story Bldgs.	Waterways: Not used.
86	W Side Sleeper	Farrell Dock & Term. Co.	See next line.	Wharf-Storage	31,778	95,000		95,000	Wd.- 1 - Fair	Dock used.
87	88 Sleeper	Ditto	McKie Lighter Co.	Wharf & Parking	9,669	17,000	2,000	19,000	5 Sheds - Wd. 1 6,000 Pile & 3,669 Solid Dock	Base for lighters engaged in heavy hoisting, bulk cargo, salvage & diving.
88	68 Sleeper	N.Y., N.H. & H. R.R.	Same & James' Diner	Wharf Diner	6,175	13,000	700	13,700	Wd.- 1 - 2,175 Solid 4,000 Piles Dock	Waterways: Not used by R.R.

APPENDIX B.

DRAFT OF PROPOSED LEGISLATION

**The Commonwealth of Massachusetts**

In the Year One Thousand Nine Hundred and Fifty.

An Act Relocating and Abandoning Certain Harbor Lines in the Vicinity of South Boston, Fort Point Channel and Atlantic Avenue and Providing for the Filling and Improvement of South Bay, Roxbury Canal, and Part of Fort Point Channel in Boston Harbor and Certain Territories Adjacent Thereto.

*Be it enacted by the Senate and the House of Representatives in General Court assembled, and by the authority of the same, as follows:*

1 SECTION 1. The pierhead and bulkhead lines along Fort  
2 Point Channel are hereby abandoned, changed and re-  
3 established as follows:—

4 The location of each of the angle points in the lines  
5 hereinafter described is fixed by a distance hereinafter  
6 called longitude, in feet, from a meridian passing through  
7 the center of the apex of the dome of the State House  
8 in Boston, and by a distance, hereinafter called latitude,  
9 in feet, from a line at right angles to said meridian and  
10 passing through the center of said apex of the State  
11 House dome, and the bearings refer to the true meridian  
12 passing through the center of said apex. Beginning at  
13 Point K in latitude, one thousand one hundred four and  
14 four-tenths feet south and longitude three thousand six

15 hundred forty-two and seven-tenths feet east, being a  
16 point in the harbor line established by Chapter One  
17 Hundred Seventy of the Acts of Eighteen Hundred  
18 Eighty; thence south twenty-nine degrees, thirteen min-  
19 utes, twenty-six seconds, west fifty-eight and eight hun-  
20 dred seventy-five thousandths to a point hereby desig-  
21 nated as TW5 and hereby established in latitude one  
22 thousand one hundred fifty-five and seven hundred eighty  
23 thousandths feet south and longitude three thousand six  
24 hundred thirteen and nine hundred fifty-six thousandths  
25 feet east; thence south sixty-one degrees, no minutes,  
26 fifty-seven and seventy-six hundredths seconds east,  
27 five hundred ninety-four and six hundred forty-eight  
28 thousandths feet to a point hereby designated as TW6  
29 and hereby established in latitude one thousand four  
30 hundred forty-three and nine hundred twenty-six thou-  
31 sandths feet south and longitude four thousand one  
32 hundred thirty-four and one hundred twenty-eight  
33 thousandths feet east; said point TW6 is hereby further  
34 identified as being in a curve with a radius of one thou-  
35 sand eighty-eight and two-tenths feet, eighty-two and  
36 seventy-five hundredths feet measured along said curve  
37 from Point S' and one thousand six hundred five and  
38 seventy hundredths feet measured along said curve from  
39 Point T'. Said points S' and T' having been established  
40 by Chapter Four Hundred Three, Acts of 1939, approved  
41 August 3, 1939.

42 All acts or parts of acts locating harbor lines on the  
43 Fort Point Channel waterfront above stream of the line



described in Section One of this Act are hereby repealed. This section of the Act shall not take effect until the appropriate action in connection with the improvements authorized by this Act is taken by the Port of Boston Authority to have the waterway known as Roxbury Canal, Dorchester Brook, South Bay and Fort Point Channel declared a non-navigable waterway of the United States by the Congress of the said United States.

SECTION 2. The Port of Boston Authority is hereby authorized to improve Roxbury Canal, South Bay, and that part of Fort Point Channel southwesterly of the new harbor line established by Section 1 and land adjacent thereto by regulating the discharge of storm water, surface drainage and sewage overflow therein by means of the construction of a conduit system with suitable connections, hereinafter more particularly described, by the erection of a retaining sea-wall adjacent to the harbor line established by Section 1 and the filling of such area and otherwise carrying out improvements substantially as recommended by the report of the Port of Boston Authority, to further investigate and study the filling and improvement of South Bay and part of Fort Point Channel in Boston Harbor and certain territories adjacent thereto in accordance with Chapter 36 of the resolves of Nineteen Hundred Forty-nine which report was filed with the Clerk of the House of Representatives on the Fifteenth of May, Nineteen Hundred and Fifty.

SECTION 3. Said conduit system, with suitable connections to existing overflows, shall be constructed as fol-

lows: (a) in Roxbury Canal, South Bay and Fort Point Channel from Massachusetts Avenue northerly to outfalls at the harbor line established in Section 1 and (b) in Dorchester Brook and South Bay from near Massachusetts Avenue northerly to an intersection with the aforesaid conduit. Said conduit system may be so constructed as to furnish sea water for industrial use to industries along the course of the system, and to carry the same away after such use. After completion, the said conduit system with its connections shall be operated and maintained by the Public Works Department of the City of Boston.

SECTION 4. During or after construction of said conduit system and connections, said Port of Boston Authority is hereby authorized to construct a sea-wall adjacent to the harbor line established in Section 1 with suitable provision for the conduit intake and outfall aforesaid, to fill to suitable grade said Roxbury Canal, South Bay, and that part of Fort Point Channel southwesterly and also any lands adjacent thereto owned or acquired by the Commonwealth.

SECTION 5. For the aforesaid purposes, the Port of Boston Authority shall acquire in the name of the Commonwealth, by purchase or otherwise, on such terms and conditions and in such manner as it may deem proper, or by the exercise of the power of eminent domain, in accordance with the provisions of Chapter 79 of the General Laws insofar as such provisions may be applicable, such public or private lands or parts thereof or



9 rights therein, and public or private ways as it may deem  
10 necessary for the substantial carrying out of the intent  
11 of the recommendations of the report of the Port of  
12 Boston Authority to further study and investigate the  
13 filling and improvement of South Bay and part of Fort  
14 Point Channel in Boston Harbor and certain areas adja-  
15 cent thereto in accordance with Chapter 36 of the Re-  
16 solves of 1949 which report was filed with the Clerk of  
17 the House of Representatives on the Fifteenth of May,  
18 Nineteen Hundred and Fifty and the provisions of this  
19 Act, provided that no damages shall be paid to the City  
20 of Boston for any lands or parts thereof or rights there-  
21 in so taken.

1 SECTION 6. The cost of the construction of the said  
2 drainage conduit, the construction of the said sea-wall,  
3 the said filling and the acquisition of such lands as may  
4 be necessary, including land damages incidental to the  
5 carrying out of the provisions of this Act, and also in-  
6 cluding engineering expenses, contingencies and interest  
7 during construction, shall not exceed Sixteen Million  
8 Five Hundred Thousand Dollars (\$16,500,000.00) and  
9 shall be paid by the Commonwealth as follows: Five  
10 Million Five Hundred Thousand Dollars (\$5,500,000.00)  
11 from the Sale of Commonwealth Bonds as hereinafter  
12 more particularly described and Eleven Million Dollars  
13 (\$11,000,000.00) from the Highway Fund, of the Depart-  
14 ment of Public Works.

1 SECTION 7. The State Treasurer shall, upon request of

2 said Port of Boston Authority, issue and sell at public or  
3 private sale, bonds of the Commonwealth, registered or  
4 with interest coupons attached, as he may deem best, to  
5 an amount, to be specified from time to time by said Au-  
6 thority, sufficient to provide means for payment of the  
7 cost of the undertaking herein authorized to be carried  
8 out by the Commonwealth, including land and other dam-  
9 ages. All such bonds shall be on the serial payment plan  
10 for such maximum term of years as the Governor may  
11 recommend to the General Court, in accordance with  
12 said Section 3 of Article LXII of the amendments, the  
13 maturities to be so arranged that the amount payable  
14 each year shall, as nearly as is in the opinion of the State  
15 Treasurer practicable, be the same, and shall bear inter-  
16 est semi-annually at such rate as the State Treasurer  
17 with the approval of the Governor and Council shall fix.

1 SECTION 8. After substantial completion of any improve-  
2 ment under this Act, the Commonwealth, acting through  
3 the Port of Boston Authority, for the purposes of amor-  
4 tizing the bonds which will have been sold pursuant to  
5 the authority of this Act, may sell, transfer to the De-  
6 partment of Public Works, or otherwise dispose of any  
7 land or lands which may have been reclaimed or taken,  
8 together with improvements thereon, subject to such  
9 easements and restrictions as it deems necessary, or may  
10 lease such land or lands as it may deem necessary in  
11 order to amortize the bonds which will have been sold  
12 pursuant to the authority of this Act.







